BMA

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Guidance on Working Patterns for Junior Doctors

A document produced jointly by the Department of Health, the National Assembly for Wales, the NHS Confederation & the British Medical Association

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Contents

Foreword

In August 2004, the provisions of the Working Time Directive will begin to apply to junior doctors in the UK. This deadline is not negotiable. It is fixed in law.

We must ensure that doctors can work safely and effectively without excessive workloads that might compromise patient care.

Accepting this as our starting point, we need to maintain the highest standards of safety and quality in the care we provide to our patients. We know that we will have to look constructively at on call rotas, at our training requirements and at how we organise cover. But we have to do so from a clear perspective that places the highest premium on patient safety.

We need to ensure the continued viability of the fullest range of locally accessible services. We need to continue to develop the concept of clinical pathways and centres of excellence.

And, we must ensure that any extra resources that are needed are focused accurately on the right solutions. We do not want to waste precious NHS resources on solutions that only offer short term stop-gaps or which trap doctors in posts which won't allow them to develop their skills to the fullest possible extent and which won't improve patient services.

But we are not starting from a blank piece of paper. A lot of work has been done, by the Department, the Royal Colleges, the BMA and the NHS itself. This document contains some good examples of hospitals that are already tackling this issue.

There will be tough decisions to make; but we also believe that we should look at implementation of the Directive as more of an opportunity and not just as a threat. An opportunity to look at the skill mix across our hospitals and how we can make better use of all of the talents available to us; an opportunity to reduce medical workload and encourage greater career opportunities for non-medical staff; we must look critically at the efficiency of many of the traditional ways of doing things and whether they can't be improved – to the

benefit of both patients as well as doctors and other healthcare staff. We need to be imaginative and to use solutions which don't just involve recruiting more and more doctors, important though that is. That is why the Department is funding a number of pilot sites to test approaches to implementing the Directive - testing out solutions and helping others prepare for 2004 and beyond.

More importantly, we need to take full account of our destination point. About the configuration of health services we want for 2009 and beyond. We want an expanded service providing faster access to higher quality care. We hope it will be this vision that drives forward how we implement the Directive, in partnership with all the major stakeholders – the medical royal colleges, the BMA, postgraduate deans, doctors at all levels, and Trusts. This document gives some useful ideas and examples about how this can be done. We commend it to you.

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The BMA Junior Doctors Committee is extremely pleased that we have been able to collaborate with the Departments of Health and the NHS Confederation to produce this document.

The New Deal and EWTD are two of the most pressing Workforce issues facing us in the NHS today. The Good Working Patterns document is a clear example of how much progress we can make in solving problems when we work together in partnership.

We hope that the advice, guidance and examples given herewith provide useful ideas and support for the groups charged with the challenging task of implementation of both New Deal and the EWTD.

PAUL THORPE,
CHAIRMAN OF BMA JUNIOR DOCTORS COMMITTEE

Part 1: Overview – What Needs to be Done

Introduction

The past year has seen a renewed focus among all stakeholders – Government, Royal Colleges, Improving Junior Doctors' Working Lives Regional Action Teams, Trusts, Deans, the BMA, and junior doctors themselves - on the way junior doctors work within the NHS.

Although the next key date for changes to regulations is not until August 2004, the changes are so profound that it is essential that the services takes full advantage of the preceding eighteen months to prepare for change. Decisions will have to be taken early in the preparation phase so this document should be regarded as the start of a process that if it has not done so already, must get underway immediately in all NHS organisations.

Two recent developments make tackling junior doctors' hours an imperative. The first is the new junior doctors' banded contract[1], introduced in December 2000, which has refocused attention on the New Deal for Junior Doctors[1] hours requirements. This requires employers to compensate junior doctors for work at high intensity or during unsocial hours through a salary multiplier, with the compensation becoming a financial penalty on the employer when the junior doctor is required to work outside New Deal hours and rest criteria[2]. Unlike the original agreements made at the time of the original New Deal agreed by the Government, the BMA and the (then) Conference of Medical Royal Colleges in 1991, the new contract has incorporated hours and rest requirements in the employment contracts of junior doctors. **From August 2001 for PRHOs, and from August 2003 for SHOs and SpRs, it will constitute a breach of contract to require a doctor to work outside these criteria, or for junior doctors themselves to work outside them**[3].

The second is the rapidly approaching requirement to bring junior doctors within the scope of the European Working Time Directive (EWTD)[4]. The first milestone for implementation of the hours and rest criteria of the directive is August 2004[5]. Furthermore, a judgement in the European Court of Justice arising from the directive[6] has now changed the traditional definition of work that existed for junior doctors. The effect of this judgement is likely to make **all resident hours of duty count as actual working time under the terms of the directive**.

This document provides advice and support for all those involved in ensuring delivery of both the New Deal for junior doctors and the European Working Time Directive for them. It necessarily focuses on the immediate imperative of meeting New Deal targets for hours and rest, but emphasises that the more stringent EWTD requirements will soon follow and that it would be foolish to plan and introduce new working patterns which do not also comply with the EWTD. **It does not replace or supersede the current Terms and Conditions of Service for junior doctors and should be read alongside them.**

In the context of this document, for the sake of clarity and consistency the term 'junior doctor' is used to describe a doctor undergoing a prescribed course of training in the grades of Pre-Registration House Officer, House Officer, Senior House Officer or Specialist Registrar.

The document also looks at the implications of implementing the new Contract and the EWTD for service delivery and training, as changes to both will be needed if we are to continue to train junior doctors appropriately and to deliver high quality services to patients. The UK model of training, which rightly has a high reputation for producing excellent clinicians, has relied on junior doctors spending long hours at the workplace during which they both developed their skills and delivered services. This will not be possible in the future as hours are reduced and new arrangements will need to be put in place to maintain both high quality training and effective service delivery, making the best use of all healthcare staff.

The traditional view that the number of hours is directly proportional to the quality of training has been rightly challenged by several agencies recently[7]. Some of the Royal Colleges have made good progress on the concepts of competency based assessment and progression[7]. This will be a key factor in developing a new culture that views quality of training and quality of trainee as the important issue – i.e. the trainee's competency in performing his or her tasks, not the total number of hours that he or she spends in the workplace. It should be possible, within a 48-hour working week, to produce trained doctors fully able to deliver high quality of care. We may well, however, have to examine closely the methods by which this is delivered and assessed.

The major group that is going to have to be addressed with respect to educational and service balance is the SHO grade. The arguments for improvement have been well rehearsed[8,9], and have led to a specific commitment in the NHS Plan to 'modernise' the grade[10]. The action flowing from the proposals for reform of the SHO grade contained in the consultation paper "Unfinished Business"[11] issued by the Chief Medical Officer in August 2002 will be critical in this respect.

It is important that all those concerned in the delivery of the EWTD for junior doctors - NHS Trusts, the medical Royal Colleges, CoPMeD/Postgraduate Deans, the BMA, the UK Health Departments – work together to formulate new ways of working and training that can satisfy the criteria of the EWTD and New Deal. This document seeks to provide advice on ways of doing this, and includes, with thanks, examples taken from the 'Real Solutions' good practice guide produced by the London and South East Improving Junior Doctors' Working Lives Regional Action Teams[12].

The Working Time Directive

Background

The European Working Time Directive (EWTD)[4] initially excluded junior doctors across Europe. However, after a process of negotiation, a timetable of staged implementation was agreed by Member States in May 2000[5]– on the back of a clear intention that the hours limits in the Directive *should* apply equally to junior doctors. This is to be welcomed as an important measure aimed at improving the quality of patient care and safeguarding the health and safety of both doctors and patients. The staged implementation means that the full '**48 hour week**' does not have to be introduced before **August 2009**; but that an interim position of a **58 hour week**, with significant changes in rest requirements, will come into force from **August 2004**. Junior doctors should in any case be working no longer than 56 hours a week after August 2003 under the new contract, but until 2004 may continue to provide on-call cover for up to 72 hours provided that their actual working hours do not exceed 56.

Timetable of implementation

DATE	DEADLINE	
May 2000	Timetable set	
August 2004	Interim 58 hour week	Rest and break regulations apply with any derogations
August 2007	Interim 56 hour week	
August 2009	48 hour week	May have an interim 52 hour week for a further 3 years until 2012

In addition to the overall hours limit, the EWTD requires the following rest and break entitlements:

1 11 Hours Continuous Rest in every 24 hour period

2 Minimum 20 minute break when working time exceeds 6 hours

3 Minimum 24 hour rest in every 7 days OR

Minimum 48 hour rest in every 14 days

4 Minimum 4 weeks annual leave

5 Average of no more than 8 hours work in 24 hours for night workers (if applicable)

Under the EWTD it is permissible for individual countries to derogate from certain requirements of the Directive. In the case of junior doctors, the overall hours limit cannot be varied, but the potential exists to derogate from aspects of the rest requirements, in particular the minimum daily rest. The UK is seeking to derogate from the rest requirements so they no longer apply in their current form, in order to minimise compliance difficulties such as conflicts between long shifts and minimum rest periods. However even with derogation, junior doctors will be entitled to 'compensatory rest' equivalent to that lost when minimum rest is not achieved.

The SiMAP case

Under the New Deal there is a distinction made between hours of **duty** and hours of **work**. The New Deal allows junior doctors working resident on-call to be on **duty** for periods of up to 72 hours a week, so long as they do not carry out actual **work** for more than 56 hours. However, in October 2000 the European Court ruled on a case brought by Spanish doctors against their employers. This has become known as the **SiMAP case**[6]. The Court's ruling clarified the meaning of working time within European Law for medical practitioners and essentially means that, under the terms of the Directive, **all hours that are spent resident on-call will be considered as work and will count towards the weekly average**, even if under the New Deal they would have been considered as rest. The hours limits of the EWTD will therefore become limits, not on the hours of ***actual work*** for resident junior doctors (currently standing at 56 per week under the New Deal), but on hours of ***actual duty.*** This will be a major reduction from the current limits of 72 hours per week for on call rotas, 64 hours per week for partial shifts and 56 hours per week for full shifts.

From August 2004, non-resident doctors may fall under the definition that '*work begins when a doctor is disturbed from rest and ends when rest is resumed*'. However, **doctors resident on-call will have all hours counted as working hours.**

Effects on working patterns

On call rotas

The extension of the EWTD to cover doctors in training, taken together with the SiMAP judgement, means that the hours limits under the New Deal will be sharply curtailed for **resident doctors**. As indicated in the implementation table in the introduction, from August 2004 the maximum resident duty will be 58 hours, falling to 48 from 2009. These hours will be able to be averaged over an agreed reference period.

Non resident doctors who have actual hours of work of 48 or less will be able to remain on On Call Rotas (OCRs) up to New Deal limits – as their EWTD limit will apply only to those hours spent at their place of work.

As a consequence, for resident doctors the number of doctors required to run an OCR will increase from August 2004 to 8 *if a 40 hour basic working week is maintained and if fundamental changes are not made to the way in which services are organised and/or the skill mix of the staff who provide them.* However where creative solutions are adopted, eg rethinking both consultant and junior working patterns and extending the roles of non-medical practitioners, it is possible to construct WTD compliant middle grade rotas with as few as 6 or even 5 middle grade doctors. These types of solutions will require non-medical practitioners prepared to assume a level of responsibility similar to that of junior doctors and working to clear agreed protocols.

If the rest criteria are strictly applied it **is** difficult to achieve OCRs that are compliant with the EWTD. As indicated above it is possible to derogate from the rest and break provisions of the EWTD (**but not from the hours limits themselves).** However, if rest requirements are derogated from, they must wherever possible be replaced with an equivalent period of compensatory rest. Compensatory rest is rest which replaces time worked, so that the total hours worked remain within the 56 or 48 hour limit. Derogating from these provisions would allow greater flexibility in designing compliant rotas while ensuring that doctors in training were not disadvantaged in terms of rest entitlements.

If the concept of compensatory rest is widely accepted and implemented, then lower intensity non-resident OCRs may well remain acceptable working patterns for the future. That being said, it is important to note that achieving this will depend on adequate **numbers of doctors or others being available** to maintain a compliant rota.

In areas where

a) there are already a minimum of 7-8 juniors on a rota, or other satisfactory staffing arrangements involving consultants and/or non-medical practitioners, OR

b) geography or clinical overlap allow merging of units and rotas AND

c) levels of intensity of out of hours work are limited

it may be possible to run OCRs that satisfy the requirements of the EWTD, at least until August 2009.

This will be made easier by increased use of cross-cover. Clinically, it has been traditional to maintain clear divisions between subspecialty groups when on call – even for the most junior doctors. This may no longer be practical as hours limits reduce. Furthermore many of the tasks performed by the most junior doctors in the out of hours period are generic – as is indicated by most intensity surveys having broadly similar boxes to tick for 'what you do when on call' – which suggests there is scope for making more effective and flexible use of junior doctors on call.

It is possible to develop systems where resident juniors provide cross-cover for, for example, broad medical or broad surgical rotas when on call, as long as they are appropriately supervised by a Higher Specialist Trainee and/or Consultant for each subspecialty that they cover. This 'generic cover' system is used to great effect in many medical systems, for example Australia[13], Canada[14] and New Zealand – where the doctors at PRHO or SHO level are expected to be less sub-specialist when on call.

This system is not incompatible with remaining attached to a sub-specialist team for the working week, enabling the development of a training and mentoring relationship to be preserved. It is important to ensure that proper supervision and handover regimes are in place.

Shift working

It is inevitable, at least in the shorter term, that increases in shift working will be necessary to implement the EWTD.

It should be remembered that the term 'shift working' can cover a multitude of different working patterns: a split weekend; a week, or half-week, of nights; 24 hours on, 24 hours off. In considering the introduction of shifts it is important to keep the following principles in mind:

Compliance with the EWTD is **not** optional

It is possible to deliver training effectively in shorter working hours and with different types of working pattern[25, 26]

It is unhelpful to focus on the type of working pattern per se (eg shift, on call) rather than on whether or not it is a *good* working pattern which delivers training, meets service needs and WTD hours and rest requirements whilst allowing junior doctors a satisfactory quality of life.

ADDRESSING THE ISSUES

Monitoring

Effective and accurate monitoring of junior doctors' hours and working patterns underpins any attempt to identify areas of concern, establish good working practices and implement appropriate solutions. Successful working pattern design must be informed by good information on work intensity and hours data., which can only be achieved by properly designed and implemented systems of hours monitoring.

A mutual obligation upon both the junior doctor and trust to comply with proper monitoring procedures is enshrined in the new contract[27].

The financial penalty for Trusts failing to monitor is severe. If they are shown consistently to fail to implement appropriate monitoring systems, a non-compliant salary multiplier will apply to the junior doctors concerned.

The potential consequences for junior doctors failing to monitor are also severe. If they do not comply, they are in breach of contract and liable to appropriate action by their employer.

Monitoring should normally be carried out at a minimum of twice a year although stable compliant posts may be monitored twelve-monthly with the agreement of all parties. In posts with obvious hours and rest problems, monitoring should occur more frequently, and certainly as part of the evaluation of working pattern or practice changes. Proper monitoring wherever possible and confirmation of New Deal compliance form an essential part of the agreed process to implement a change in banding, the process of which is set out in Terms and Conditions of Service[28] and supported by an agreed national process[29].

Many Trusts and Regional Action Teams have made significant and successful efforts to improve the quality of monitoring data. The BMA and Department of Health have set up a Working Group in 2001 to look at systems of monitoring, and to produce an overview of monitoring systems to aid employers in enhancing and developing their local practice. This report will be available shortly on the Junior Doctors section of the Department of Health's website at www.doh.gov.uk/juniordoctors.

The hours and rest limits are now enshrined within the legally binding contract of employment[3].

- ***Maximum duty*** limits have been included in contracts from **1st December 2000** for all junior doctors.

- ***The hours of maximum actual work and minimum rest*** have been included in the **PRHO** contract from **1st August 2001** and will be for all other junior doctors from **1st August 2003**.

Persistence of working patterns outside these limits will constitute a breach of contract, as well as attracting the financial penalty of a high salary multiplier. Further details on the new contractual arrangements and formulae for calculating actual hours of work under various working patterns are at Annex A.

Guide To Designing, Evaluating And Maintaining Compliant Working Patterns

It is important to review existing working patterns regularly to ensure they continue to meet the New Deal requirements and, in future, are compliant with EWTD. Some key design principles are set out at Annex B.

Stages

1. Identify existence of problem

Is there a problem at all? If well designed monitoring indicates compliance with the New Deal, and if satisfactory training as judged by the appropriate authority is being delivered, then there is no problem in the short term though it will be important to keep the working pattern under review to ensure continuing compatibility with EWTD.

It is important that employers take steps both to identify and tackle any current or emerging problems working with local staff at an early stage. In addition to the monitoring required under the new contract, employers may wish to consider other strategies to identify problems with hours and rest criteria compliance. Examples include 'snap shot' monitoring, or debriefing interviews with doctors leaving a post.

If monitoring has revealed a compliance problem:

2. Involve stakeholders and facilitators

It is important to involve all stakeholders in identifying and implementing solutions to compliance problems. As well as the juniors themselves there needs to be involvement of Trust management, consultant medical or dental staff, trainers, and other staff working in the specialty/unit to clarify the issues and work on an action plan. It would be sensible also to involve the Trust Local Implementation Group at an early stage and to consider seeking advice from other groups who may

have encountered similar issues elsewhere e.g. BMA junior representatives, Action Team representatives and employees, and College representatives for training issues.

This process is vital to ensure ownership of the solution by all the key stakeholders.

3. **Analyse existing situation, key causes of problem, and drivers to change**

4. **Discuss all possible solutions**

It is important that these stages are conducted in an open, frank manner, without preconceptions or attitudes that any possible solution is automatically unacceptable either to junior doctors, to other staff or to Trust management. Within these stages it is helpful to clarify:

- Distribution and variations of workload and numbers of hours worked/levels of rest achieved
- Classification of duty periods within the working pattern and the frequency of the rota cycle
- Tiers of cover
- Definition of prospective cover
- Training requirements
- Service requirements and profile
- Resource requirements
- How potential solutions fit with New Deal/EWTD requirements

5. **Agree a template of a theoretically workable solution**

6. **Institute trial period of implementation**

7. **Evaluate change and effects on intensity, training etc.**

Once a potentially workable solution has been identified it needs to be tested out. This must include a further period of monitoring - preferably to run over the cycle of the altered working pattern.

8. Meet key stakeholders to discuss trial and evaluation

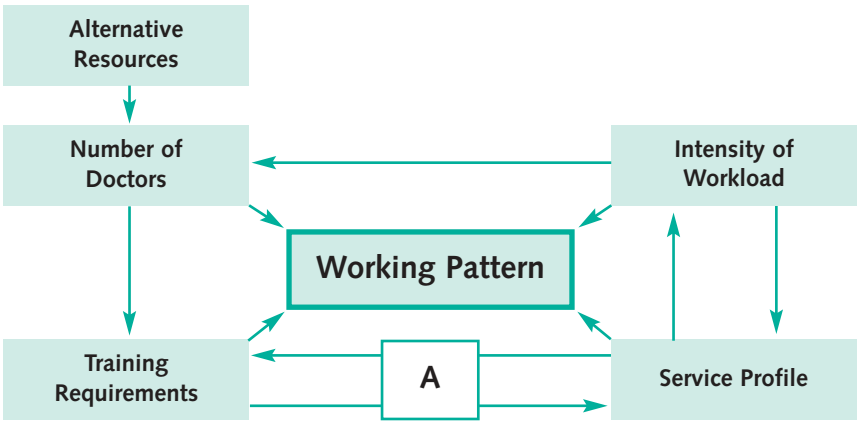
It is useful to try and maintain consistency of membership and approach with respect to the stakeholder group meetings

9. Agree alterations and further evaluation, or agree implementation

10. Continue with maintenance monitoring to ensure working pattern continues to perform satisfactorily

11. Anticipate future changes in hours and rest limits, or future variations in workload/intensity

The appropriate working pattern will be dictated by the following inputs:



It is particularly important to ensure an appropriate balance [A] between service and training requirements. These will not be at odds in a well-structured post but in the past there have been concerns that service requirements have been dominant. It is important to remember that all junior doctors are trainees and to ensure that their posts make proper provision for this.

Hours Protection

The aim of the new contract is to reduce junior doctors' hours over time, and both employers and juniors are required, under the terms of the juniors' contract of employment, to work together to bring posts into compliance with the New Deal. Any substantive changes to the working pattern that might lead to an increase in hours worked can only be introduced with the agreement of the postholder(s) and the Action Team[20]. The mechanism for this approval is detailed in the guidance accompanying the new contract, and in agreed protocol. Annexes D and E contain the documentation and processes used in England and in Wales – readers should note that these differ slightly in process but not in principle.

Mechanism for re-banding

A clear mechanism for re-banding posts has been agreed. This dictates that if a change takes place, monitoring must be carried out to ensure that the change has had the desired effect, and a notification, signed by representatives both of the Trust and the postholders, must be sent to the Action Team for approval before the banding change can be finally instituted[20]. Either the employer or the postholders may instigate a review of arrangements at any time should they feel that the banding allocation no longer reflects correctly the working practices of the post.

Part 2: Solutions and Good Practice

POSSIBLE SOLUTIONS TO WORKING PATTERN PROBLEMS [12, 21, 22]

Some trusts have already moved towards compliance; many others are planning their first moves in this direction. This section contains useful advice and examples of local solutions that have already been implemented, and we hope to publish further examples in due course. Solutions to identified problems, including planning for meeting the EWTD requirements, will depend on the local circumstances, pressures and resources of the unit involved, although there are some common patterns of problems and solutions. However, with the legal requirements on hours and rest enshrined in contract *a working pattern that is non-compliant with the New Deal (and ultimately the EWTD) must be changed.*

The solutions can be broadly classified into:

1) Reducing inappropriate duties and enhancing support for appropriate ones

2) Diverting workload geographically, temporally or to other staff groups

3) Generating and allocating additional resources

4) Changing working patterns

It is important to go through a process of examining all solutions, rather than just those that first spring to mind, including challenging traditional practices and approaches whether professional (cross-cover, reducing tiers of cover) or managerial (service organisation and structure). It is important to take a "whole systems" approach to solutions, starting with a "blank page" rather than simply tinkering with the working pattern without addressing other issues. A helpful approach to planning a new working pattern is to look at a triangle of interacting requirements:

- Service delivery – what services do patients need – when – and where?

- Training – the planned pattern must enable junior doctors to acquire the competencies they need for educational purposes, and

- Compliance with EWTD criteria – the planned pattern must enable doctors to achieve the EWTD hours and rest requirements, for their own health and safety and that of their patients.

Frequent areas of attention include:

1. Bleep policies

These can be extremely effective when used properly. The particular problem is *continued maintenance* of the policy. It may be useful to consider that only those doctors on call or on crash teams actually hold a bleep, and that only certain staff groups are allowed to contact it.

West Midlands Regional Action Team have developed a standard bleep policy that can be applied to most acute units. (Annex C)

2. Organisation of workload

- Moving workload out of the Out Of Hours (OOH) period into the normal working day can significantly reduce night-time intensity. The provision of effective and staffed emergency operating sessions and acute clinics during the day can provide time for work that previously might have been delayed to OOH periods. This not only reduces the intensity of OOH work, but also improves the service delivered to patients requiring urgent treatment.

- Ensuring that appropriate senior support is organised around highest intensity periods – for example, senior medical staff working on admissions units or doing ward rounds in the evening to pre-empt night time problems. It may be appropriate to direct workload to different grades of staff within the professional group, accepting that their hours of work and educational imperatives should not be adversely affected.

Greenwich Healthcare Trust has developed a system of Consultant Night Rounds[12], where the Consultant returns to the hospital at 21.00 hours to supervise a ward round that includes handover from the evening shift SHO to the night SHO. The on-call SpR also attends. The ward round covers the Special Care unit and the general ward. This allows the admissions for the day to be discussed with and assessed by a Consultant, with decision making for investigation and treatment being made at an early stage. Some patients are discharged that night. This allows the workload to be efficiently structured by

involving all grades of staff on call. It also allows training episodes to be used in the out-of-hours periods.

Greenwich also runs a Paediatric Emergency Clinic[12] during daylight hours that allows general practitioners, A & E staff and junior paediatric doctors to refer patients for urgent consultation with a Consultant or Associate Specialist. In one year, audit of this service showed that 1,872 patients were assessed, with 865 from A & E, 468 from GPs and 151 from other sources. Only 99 patients required admission, and 398 were followed up with hospital appointments. It can also be used as a training resource. Had this service not been available, it is likely that a much higher proportion of these referrals would have been admitted as an emergency, increasing junior workload.

3. Organisation of Tiers

There may be inappropriate 'repetition of care' by having several tiers of junior covering the same patient group. It may also be possible to identify broader groups of patients that will be amenable to cross cover by larger, merged rotations of juniors.

Gloucester Royal Hospital Maternity Unit identified that many of the tasks performed by SHOs in the unit overnight could be performed by midwives who had received suitable training while the more complex tasks still required Specialist Registrar input. By increasing the responsibility of the midwives, and linking their upward referral pattern directly to the Specialist Registrar, it was possible to free the SHOs to go off shift at 2100 hours. This reduced their hours of duty and work, and actually enhanced daytime training, as the SHOs no longer required the next day off, were available for training adequately rested, and did not increase SpR workload.

4. Skill Mix and Role Enhancement

Developing the skills of other professional groups to undertake wider roles can both ease the workload pressures on doctors and enhance the roles of those professional groups. The role of Night Nurse Practitioners and Specialty Nurses has been a major step forward in developing roles that were previously allocated to junior doctors. Many Trusts have training and development programmes to extend and enhance the roles of other professional groups in their hospitals.

Solutions that have been tried include:

- the employment of a Professional Practice Development Nurse, to co-ordinate such role enhancement and encourage development,

- the development of a Nurse Led Drug Administration policy, which allowed designated and trained nurses to supply drugs against a collectively agreed and medically signed patient group direction.

The **Changing Workforce Programme**, part of the Modernisation Agency, is a leading initiative set up to help the NHS and associated organisations in England to develop new ways of working. It supports the NHS in re-designing staff roles by combining tasks differently, expanding roles, or moving tasks up or down a traditional, uni-disciplinary ladder. It is also working to help remove barriers to change and ensure that new ways of working can become embedded in the health service.

For help and support from the Changing Workforce Programme you can:

telephone - 020 7210 5852
e-mail - cwp@doh.gsi.gov.uk
contact - www.nhs.uk/modernnhs/cwp

5. Transferring inappropriate tasks

It is important to review how the range of services needed in a hospital is delivered out of hours to ensure that there is proper support for doctors in training and other professional staff.

Many trusts are introducing automatic systems for the delivery of specimens to laboratories, for example, vacuum systems. It is important that back up protocols for automatic system failure exist, so that junior doctors do not become the 'lowest common denominator' for portering duties.

Some nursing staff, in A & E units, Medical Admission Units and on wards are trained in phlebotomy, cannulation and invasive vascular access procedures. It is more efficient, and provides superior patient care, for a nurse or competent support worker who is suitably trained to re-site an intravenous cannula, rather than having to identify which doctor is on call, bleep them and wait for that doctor to attend the ward to cannulate the patient.

Examples of Good Practice

Non-compliant surgical OCR moves to Partial Shift for Middle Grades

North Bristol NHS Trust

Originally two units with a total resource of 12 middle grade doctors. Southmead Hospital has a large elective workload at a purpose built Orthopaedic Unit and Frenchay Hospital a large trauma workload. The hospitals are situated about 3 miles apart.

Previously, both hospitals ran an A&E department with full orthopaedic middle grade cover.

The unit at Southmead stopped covering trauma with concentration on elective work. Major orthopaedic trauma was all directed to Frenchay, including transfer of appropriate patients from the A&E unit at Southmead. The middle grades adopted a 1 in 12 rota for both hospitals (1st on at Frenchay, 2nd on covering Southmead), making a 1 in 6 total. The 2nd on duty is low intensity. The weekends were split Saturday 1st on, Sunday 2nd on.

The Consultants merged their rotas, making a 1 in 12. All day trauma lists mean that only life- or limb-threatening cases are operated on at night.

The rota is therefore a compliant quiet non-resident 1 in 12, coupled with a busy, effectively resident 1 in 12 with split weekends. The registrars are well supervised, as the easing of the rota for the consultants mean that they can effectively use the out of hours period as training in addition. The decreased frequency of on call disrupts their daytime activities less.

Both consultants and middle grades are satisfied that the rota delivers service and training.

This is a good example of how service rationalisation and moving to a partial shift can be effective.

24-hour partial shift for SHOs and SpRs in General Surgery

Taunton and Somerset NHS Trust

A 24 hour partial shift has been provided for SpRs in General Surgery. Most working days run on a normal pattern of 0800 to 1700.

There is a rolling rota of weekday on calls, which start at 1200 and end at 1200 the next day - with the morning off before, and the afternoon off after the night on call. This allows a surgeon to operate on cases admitted overnight during daylight hours on a morning emergency list. The culture shift here was to move from the traditional 0800 to 0800 on call period. Rest periods that are staggered with the normal working day are more likely to be taken.

The weekends are on a one in six basis supported by staff grade participation in the rota, but with duties split so that duties will fall on every third weekend. The weekend is split to work Friday 1200 to Saturday 1200 and Sunday 1200 to Monday 1200 on one weekend, with Saturday 1200 to Sunday 1200 on a subsequent weekend.

Good practice would be to factor some handover time into such a rota as well.

The PRHOs in the department work on a full shift with a week of nights every seven weeks. A week with no rostered duties ensures weekly hours are kept below 56 and allows early starts (8am) and late finishes (6pm). There are three nurse practitioners employed solely to work in support of the PRHOs, providing routine work and provide cover and continuity during PRHO's absence on leave.

Good practice would again suggest splitting a week of nights into a maximum of four and three nights with suitable recovery time.

Multi-tier non compliance addressed by a whole systems approach

Sheffield Childrens Hospital

Sheffield Childrens Hospital is a busy city centre specialist paediatric teaching trust. It had significant New Deal problems that were addressed by a whole systems approach.

New Deal compliance was made a **quality** issue, with the emphasis put on the improvements to patient care delivered by having junior doctors who complied with the New Deal. Compliance was set as one of the **corporate objectives**, with input, supervision and performance management at Trust Board level.

Dr D Burke, the Medical Director: 'We had to work hard to drive a culture change, mainly in implementing new working patterns for medical staff where appropriate'; 'it was important to make this issue an organisational objective'; 'no-one claims that the system is now perfect, but there is agreement, especially among the more senior junior staff, that the current system is a marked improvement on non-compliant rotas'.

The change in Sheffield was achieved by an increased use of shift rotas where appropriate, coupled with significant consultant expansion - between 20% and 50% for different departments. The support for junior doctors achieved with this change was coupled with a successful commitment to deliver the EWTD hours limits for **consultants** - ensuring that senior medical staff were granted proper compensatory rest, and did not feel that their workload was simply expanding to accommodate the changes in juniors doctors hours.

Sheffield Childrens have now been able to disband their New Deal Local Implementation Group, as they have achieved the targets of the New Deal, but this has been replaced by a working group looking at implementation of the EWTD for junior doctors. This is coupled with a directorate level service planning exercise to anticipate the changes necessary for 2004.

Hybrid working pattern for Surgical SHOs

Princess Alexandra Hospital

Seven surgical SHOs work a normal working day of 0800 to 1700. A seven week rolling rota incorporates 'late shifts' of 0800 to 2030, on Monday (week 1), Tuesday (week 2), Wednesday (week 3), Friday to Sunday (week 4), Thursday (week 5) and a week of nights 2000 to 0900 from Friday of week 6 to Thursday of week 7 with three days of recovery time after the week of nights.

Partial Shift pattern for Medical SHOs

Warrington Hospital

Seven medical SHOs work a normal working day of 0900 to 1700. A rolling 'late shift' from 0900 to 2100 runs from Saturday/Sunday on week 1, through individual weekdays from week 2 to week 6 and incorporates a week of nights 2030 to 1030 on week 6/7, with three days of recovery time after the week of nights.

These two rotas above demonstrate the 'week of nights' principle. Research has shown that the week of nights can induce significant disturbance to the circadian rhythms of workers[23], and it is better practice where possible to try and split the week of nights into at least one four-day and one three-day block, with sufficient recovery time afterwards.

24-hour Partial Shift Pattern for Medical SpRs

Newham Healthcare NHS Trust

Nine medical SpRs work a normal working day of 0900 to 1700 overlaid with a 24 hour partial shift running from 1200 to 1200 and 24 hours off after the on call period. The weekends are split Friday-Sunday and Saturday.

Full Shift Surgical SpR rota

Portsmouth

9 doctors working full shifts in 4 sub-speciality corners/teams, taking a team approach to care. Working with 18 to 22 patients on an average take; 16 seen during a long day. This is supported by changes in working practices in the rest of the team, and SHOs (only 5) now leave at midnight.

There is a full day consultant CEPOD list the day after on call, and an estimated 70% –90% of the emergency patients are seen by the 'long day' SpR who then operates the next day, giving enhanced education and continuity.

Normal day - 8am-5pm

Long day - 8am-10pm fixed Monday to Thursday for each corner, each SpR doing alternate weeks.

Weekend of long days Fri Sat Sun (trying to fix this to own Consultant on call)
Groups of nights - Friday to Sunday (3), or Monday to Thursday (4) 9pm to 10am

Handovers are built in but are often shorter than timetabled, and 2-4 hours rest is achieved overnight. The rota has been monitored compliant at 2B; this requires locum cover for study leave.

Even more could be done to improve any negative impact on day time experience by some rearrangement, and the nights could be run differently so that the rolling day, rather than the regular day is missed.

Educational sessions (research/ offsite experience) need to be timetabled for protection, with morning better than afternoon.

Conclusion

The introduction of limits on contracted hours and of the EWTD puts demands on both the medical profession and health service managers to deliver patient care in new ways to meet legal requirements. It is important to stress both that the status quo is not an option and that there are ways of designing working patterns for doctors in training, and making proper use of the skills of other staff, which will enable these demands to be met. This guidance has demonstrated some approaches.

In addition the Department of Health is working closely with the medical profession and with NHS employers to identify other examples of good practice and to plan and pilot new ways of working to help Trusts to deliver the EWTD requirements.

In summary, the EWTD is undoubtedly going to present challenges to the NHS. However, by involving all stakeholders in the process of developing new ways of working and training and continuing to increase the number of doctors working in the NHS, we can maintain and enhance training for junior doctors, meet the requirements of the Directive and enhance patient care.

Annex A

New deal definitions

Banded contract

From 1st December 2000, the Additional Duty Hours (ADH) pay system was replaced with a pay banding system[1].

The system reflects compliance with the New Deal (non compliance = **Band 3**). The bands for New Deal compliant posts reflect Actual Hours of Work up to **40 hours per week (Band F), up to 48 hours per week (Band 1), or up to 56 per week** (**Band 2**); and the bands are subdivided by criteria based on type of working pattern, intensity of work and proportion of out of hours work.

Definition of work

For banding purposes, the definition of actual hours of work is as per the New Deal[2]. This is '*all time spent carrying out tasks for the employer, but does not include rest while on call'*. (Note: this is different from the Working Time Directive definition of work, which defines working time as "… any period during which the worker is working, at the employer's disposal and carrying out his activity or duties, in accordance with national laws and/or practice.")

For the purposes of defining work **after 7pm** '*work begins when a doctor is disturbed from rest and ends when rest is resumed* [1]. This, therefore, includes providing telephone advice; or time *waiting* to perform a clinical duty, such as waiting for an operating theatre to be prepared or a patient to have a radiological investigation.

The only defined exclusion from this is a doctor who has been informed of a future need to return to the place of work from the place of rest that does not need to happen immediately. In this case, the time between being informed of future need and the time when attendance is required (if otherwise undisturbed) can be counted under the New Deal as rest time.

Definition of a weekend

The weekend is defined as the period **7pm Friday to 7am Monday**[1]. The frequency of weekends worked is defined by the frequency with which the doctor is on duty at any time during this weekend period.

Definition of normal working week

For banding purposes, those full time doctors who work up to **40 hours per week** totally between the hours of **8am and 7pm** will receive no supplement, and therefore receive a basic salary only (1.0).

Flexible Trainees who work **less than 40 hours per week**, totally between the hours of **8am and 7pm** will be allocated to Band FC, will receive no supplement, and therefore receive a pro rata of basic salary only.

Definition of prospective cover

This is where the doctors on the rota internally cross cover for colleagues' leave – annual and/or study. It includes when leave periods are 'fixed'. There can be no prospective cover arrangement for sick leave[18].

There is no nationally agreed method of calculating prospective cover allowance. The BMA Junior Doctors Handbook contains helpful guidance providing a formula for calculating allowances, and example calculations in the sections that follow are based on this guidance. While accepting the basic principle, the Department of Health does not necessarily endorse this method which is one of several approaches to the issue.

Types of working pattern

These can be classified under 5 types:

1. On call rota

2. Partial shift (including 24 hour partial shifts)

3. Full shift

4. Hybrid rota

5. No out of hours work

The quoted hours and rest requirements that define compliance are as indicated in the New Deal[2] document as modified by HSC 1998/240[24] and the new banded contract[1] (for weekend criteria with compensatory rest).

On call rota (OCR)

Definition

In this working pattern, doctors work a 'normal working day' on weekdays from Monday to Friday. Under the new banded contract, the normal working day can be structured between the hours of 7am and 7pm[1].

The remainder of the weekly hours, over and above the normal working week, is known as the 'out of hours period' (**OOH**). This is covered by doctors being 'on call' in rotation. Juniors rostered for duty periods that are greater than 24 hours will be working an on-call rota.

The rotation frequency is defined by the frequency of on call episodes in the rota. This frequency is expressed as, for an example with 6 doctors covering, a '1 in 6'. The rota description should also include definition of levels of Prospective Cover.

New deal requirements:

Maximum hours of Duty:	**72 hours per week**
Minimum Period off Between Duty:	**12 hours**
Minimum Continuous Period off Duty:	**One 48 hour period and One 62 hour period in every 21 days**
Maximum Continuous Duty Days:	**13, followed by minimum 48 hours off duty**
Maximum Continuous Period of Duty:	Weekdays: **32 hrs** Weekends: **56 hrs**
Minimum Rest Period:	**Greater than or equal to one-half of OOH period on 75% of occasions (e.g. for a 32 hour on-call duty this would be 8 hours)**
Therefore:	Weekdays: **8 hours** Weekends: **12 hours per day** Total actual weekly hours of work must not exceed 56
Minimum Continuous Rest Period:	**5 hours between 2200 and 0800 on 75% of occasions**

The rationale behind these limits is that if the doctor has achieved a regular expectation of the equivalent of half the OOH period resting with a minimum continuous period of 5 hrs rest between 10pm and 8am, it is acceptable to work on the following day. A working pattern that does not achieve these levels of rest due to intensity of overnight work is inappropriate for an OCR pattern.

The weekend rest criteria have been modified under the new banded contract[1] allowing rotas that satisfy all criteria except weekend rest to achieve New Deal compliance. The agreement allows compensatory 'equivalent paid rest' to be built into the rota for each weekend worked. This must be built into the rota within 8 days of the weekend worked, i.e. by the end of the Monday of the following week.

The level of compensatory rest is dependent upon the total rest actually achieved over the w/e:

Total Rest achieved in 48hr w/e: **16 to 20 hours**: **One full day (8 hrs)**
20 to less than 24 hours: **One half day (4 hrs)**

If the level of rest is less than 16 hours, then the rota is non-compliant. The rota must also comply with the minimum 5 hour overnight continuous rest period.

Calculating actual hours of duty:

Currently, it is possible to construct a New Deal compliant OCR with 4 doctors:

- 4 doctors all concurrently work from 9am to 5pm, Monday to Friday (40 hours per week), and divide the OOH period of 128 hours between them. 128/4 = 32. Therefore, total hours duty per week = 72.

However, this is only possible if there is full locum cover for leave and normal working day activities.

Calculating actual hours of work:

Length of Normal Working Day x Number of Days Worked per Week = **a**

Number of Hours of Actual Work on Weekday on call periods = **x**

Number of Hours of Actual Work on Weekend on call periods = **y**

Number of doctors on rota = **z**

Actual Hours of Work on call = $\frac{\textbf{(5 times x) + y}}{\textbf{z}} = \textbf{b}$

Therefore total Actual Hours of work = **a + b**

Calculating actual hours of work where prospective cover is in operation

Using the above variables, and where

Total Study and Annual Leave for individual on rota = **L days**

PC Hours = $\frac{\textbf{(b times L)}}{\textbf{(365 – L)}}$ = **c**

therefore total Actual Hours of work including PC = **a + b + c**

The English Clause

The English Clause[25] (named after Sir Terence English) of the New Deal will continue to exist for very low intensity OCR patterns that require doctors to be on call for up to **83 hours per week** for training purposes. It is important to remember that such posts have to be fully New Deal compliant with all other hours and rest criteria. Posts have to be approved by Postgraduate Deans, who will expect to see clear evidence of compliance before approval, and have the signed agreement of the individual postholder.

If these are *non resident* jobs, they will be able to have actual hours of work of **56 per week** until **August 2009**, when the **48 hour** limit on actual hours of work inherent in the EWTD is implemented. The 83 hour on call limit can still continue, as long as the doctor has actual hours of work of 48 or less.

If, however, they are *resident* jobs, it will be impossible to apply the English Clause past **August 2004**, as it will be superseded by the WTD definition of work.

Partial shifts

Definition

These are working patterns that are designed to accommodate a more intense workload than an OCR pattern. They are subdivided into:

1. Partial Shifts, where doctors are rostered for periods of duty not greater than 16 hours, and

2. 24 hour Partial Shifts, where doctors are rostered for periods of duty greater than 16 hours, up to a maximum of 24 hours

In these working patterns, doctors will, for the most part, work a normal day. However, this is combined with defined intervals where the doctor works a different duty for a fixed period of time, e.g. evening or night shifts. The shift portion of the pattern should normally coincide with the period of highest intensity. Handovers should be INCLUDED in the duty period, not added at the end.

New deal requirements

Maximum hours of Duty:	**64 hours per week**
Minimum Period off Between Duty:	**8 hours**
Minimum Continuous Period off Duty:	**One 48 hour period and one 62 hour period in every 28 days**
Maximum Continuous Duty Days:	**13, followed by minimum 48 hours off duty**
Maximum Continuous Period of Duty:	Partial Shift: **16 hours** 24 Hour Partial Shift: **24 hours**
Minimum Rest Period:	16 Hour Partial Shift: **Natural breaks if greater than or equal to one-quarter of OOH period on 75% of occasions** 24 Hour Partial Shift: **6 Hours** **Total actual weekly hours of work must not exceed 56**
Minimum Continuous Rest Period:	Partial Shift: **Frequent short periods of rest are not acceptable** 24 Hour Partial Shift: **4 hours between 2200 and 0800**

The rationale behind these limits is that as the doctor has only achieved a regular expectation of one quarter of the OOH period resting, it is not acceptable to work on the following day, until the doctor is adequately rested. The 24 hour partial shift allows a pattern similar to a traditional OCR, but the intensity of the shift demands that the doctors need the following day off. A working pattern that does not achieve these levels of rest due to intensity of work is inappropriate for a Partial Shift pattern.

Partial Shift working patterns have attracted a very bad reputation in the past, largely because of the introduction of poorly designed shift systems which did not allow for high quality training and led to difficulties with handover and continuity if care. It can also be difficult to maintain compliant partial shifts. These problems have led to a suspicion of shift working patterns in general amongst junior doctors and trainers in the UK that is not reflected in other developed nations. Countries such as Australia, New Zealand, USA, the Netherlands, Denmark and Scandinavia have significant proportions of their

doctors in training working on shift patterns of work – without any evidence that they produce less skilled or qualified medical practitioners at the end of training.

Much work has therefore been done to try to develop partial shift patterns that can both deliver appropriate training and meet service requirement. Although it is possible to construct a New Deal compliant Partial Shift with 5 doctors, the disruption to training patterns, circadian rhythms and lifestyle have made these very unpopular. It is also important to remember that as Partial Shifts are by definition higher intensity posts, they tend to be staffed by resident doctors. This means that the maximum hours of duty will reduce to **58 hours per week** by **August 2004**[5] making 5 doctor partial shifts untenable.

Experience has shown that, unless more radical changes to working patterns and skill mix are adopted, the minimum number of doctors to staff Partial Shifts which will comply with the Working Time Directive is in the region of 7 – 8, depending on design. There are many examples of 8 doctor Partial Shift patterns which work successfully for both training and service provision, as the disruptive nature of the shift element is diluted by the number of doctors on the rota.

Calculating actual hours of duty

This is done by calculating the hours of the basic working week, taking into account any periods where the doctor is removed from the basic working week due to other shifts worked. The total of out of hours shifts over a cycle of the rota is then totalled, and divided by the number of weeks in the rota cycle. Allowable Hours of Duty for resident Partial Shifts will reduce from 64 hours per week to 58 hours per week by August 2004. By August 2007, a further drop to 56 hours will occur, with the 48 hour limit being implemented in 2009[5].

Calculating actual hours of work

Number of doctors on rota = **z**

Work out total Shift periods done each week, including all doctors on the rota cycle, remembering that these doctors may work variable patterns.

Determine the Actual Hours of Work done on each Shift = **a1, a2, a3, a4 …**

Add the Actual Hours of Work done each week = **a1 + a2 + a3 + a4 + … = A**

Actual Hours of Work = $\mathbf{W} = \frac{\mathbf{A}}{\mathbf{z}}$ assuming that the doctors work a similar pattern

Calculating actual hours of work where prospective cover is in operation

Using the above variables, and where

Total Study and Annual Leave for individual on rota = **L days**

PC Hours = $\mathbf{W \times \frac{L}{(365 - L)} = c}$

Therefore total Actual hours of work including PC = **W + c**

However, for many partial shifts, prospective cover only applies to certain parts of the rota. If this is the case, it is preferable to separate out these parts of the rota and calculate PC on that portion:

$\frac{\mathbf{L}}{\mathbf{(365 - L)}}$ **x** (number of hours per doctor per week which are subject to cover) **= c^p**

Full shifts

Definition

A Full Shift divides the total working week of 168 hours into definitive time blocks, with doctors rotating around the shift pattern. Doctors can be expected to be working for the whole duty period apart from 'natural breaks', e.g. a minimum thirty-minute break after approximately four hours of continuous duty.

Doctors will be rostered for periods no greater than 14 hours.

New deal requirements

Maximum hours of Duty:	**56 hours per week**
Minimum Period off Between Duty:	**8 hours**
Minimum Continuous Period off Duty:	**One 48 hour period and One 62 hour period in every 28 days**
Maximum Continuous Duty Days:	**13, followed by minimum 48 hours off duty**
Maximum Continuous Period of Duty:	**14 hours**
Minimum Rest Period:	**Natural breaks**
Minimum Continuous Rest Period:	**minimum of 30 minutes rest after approximately 4 hours continuous duty**

The rationale behind these limits is that these are high intensity working patterns that therefore have to have strict upper limits on length of shift.

Calculating actual hours of duty

This is calculated by adding all duty periods over a complete cycle of the rota, and dividing by the number of weeks in the rota cycle.

Allowable Hours of Duty for Shifts will reduce from 56 hours per week to the 48 hour limit being implemented in 2009.

Calculating actual hours of work

Number of doctors on rota = **z**

Work out total Shift periods done each week, including all doctors on the rota cycle, remembering that these doctors may work variable patterns.

Determine the Actual Hours of Work done on each Shift = **a1, a2, a3, a4 …**

Add the Actual Hours of Work done each week = **a1 + a2 + a3 + a4 … = A**
Actual Hours of Work = $\mathbf{W} = \frac{\mathbf{A}}{\mathbf{z}}$

Calculating actual hours of work where prospective cover is in operation
Using the above variables, with Total Study and Annual Leave for individual on rota = **L days**

PC Hours = $\mathbf{W} \times \frac{\mathbf{L}}{\mathbf{(365 - L)}} = \mathbf{c}$
Therefore total Actual hours of work including PC = **W + c**

However, for many shifts, fixed periods of leave including prospective cover are factored into the rota.

Hybrid working patterns

Definition

Hybrid working patterns involve a combination of 2 or more of the above working patterns. They are designed to accommodate working conditions that involve substantially different levels of intensity – thereby necessitating at least two different working arrangements[23].

New deal requirements

Each component of the pattern must conform to its appropriate definition and hours/rest controls. A shift system in which the length of duty period exceeds that permitted for the level of intensity is not a hybrid – it is a non-compliant shift system. An OCR with inadequate rest periods is not a hybrid – it is a non-compliant OCR.

Calculating actual hours of duty and work

It is recommended that each of the components of the working pattern is considered in isolation for such calculation. Apply the calculations as listed under the relevant section for each part of the hybrid.

Flexible trainees

Flexible Trainees (FTs) have been divided into groups based on whether they:

- Comply with the New Deal (non compliance = **Band 3**)
- Work for **40 hours of actual work per week or more** where they are allocated to a band in the same way as full time doctors.
- Work for **less than 40 hours per week** where they are allocated to Bands FA, FB or FC

The banding process for these situations is the same for all trainees.[24]

It is important to include all FTs in the evaluation and analysis of a working pattern unless they are designed to be supernumerary; and to identify the flexibility and training needs of an FT when designing the pattern.

Annex B

Designing, evaluating and maintaining compliant rotas

Good health and safety practice

Appropriate design of the working patterns for junior doctors has been clearly shown to be an important health and safety issue. This applies both to patient and personal safety. The BMA Health Policy and Economics Research Unit (HPERU) published in August 2000 a review of the evidence held within scientific literature on the implications for health and safety of junior doctors' working patterns. This review is available as a resource document from the BMA[33].

Patient Safety

When junior doctors work for long periods of continuous duty without adequate rest, their performance becomes significantly impaired – that is now established beyond debate[30]. However, the performance drop over relatively short periods of sleep deprivation is greater than commonly appreciated. The effect of a single night's lack of sleep on cognitive and manual dexterity performance measures performed the next day show a level that is equivalent to alcohol consumption over the legal limit for driving[27, 28]. A clear link has been established between sleep deprivation, long duty and deterioration in reasoning and information processing abilities.[29, 30]

Other professional groups whose work involves care of, or risk to, other persons acknowledge this and limit hours by strict legal control or professional agreement (eg coach drivers, airline pilots, train drivers).

The potential risks to patient care make it vital that working pattern design takes into account such evidence – and seeks to construct systems of hours of work, rest, supervision and communication that protect patients against such risks.

The risk of negligent actions is increased by working long hours[31, 32]. The intensity of work and concurrent demands upon staff increased dramatically over recent years, but this has also been matched by an increasingly litigious public, who are better informed and more demanding about the quality of healthcare and information that they receive.

Personal Safety

It is clear that the working hours of junior doctors account for a considerable proportion of their occupational morbidity. The stress of work relates to duty period, actual hours worked, sleep deprivation, disruption of circadian rhythm and levels of supervision. This not only has an effect on health and well being, but upon family and social life.

Health and safety law provides that employers have a duty to provide a safe system of working and duty to take reasonable care of the safety of the employee.

Principles

The HPERU study on implications for health and safety of junior doctors working arrangements[33] derived key design principles for working patterns:

1. Employees should be involved in the development of the schedule. This is a situation that has been all too rarely practised for junior doctors. The research in the HPERU study, backed up by the recommendations of the recent Government Taskforce on Staff Involvement[34], indicate that acceptance and successful implementation of a well designed rota can only occur if the staff working on that rota are involved in its conception and design.

2. Where practicable, shift duration should not exceed 12 hours. This would fit with the EWTD requirement of an 11 hour period of continuous rest each day.

3. Total hours of work per week should not exceed 48.

4. Continuous shift systems, which include weekends, should include some free weekends with at least a 48 hour period of continuous rest. This is to avoid the concept of cumulative exhaustion. Shifts should rotate clockwise – morning, noon, night.

5. Consecutive night shifts should be kept to a minimum.

6. Morning shifts should not start too early

7. The period of the shift that falls in the night sleep zone should be as short as possible.

8. Night shifts, where possible, should include short 'anchor' or 'power' sleeps.

9. Good lighting, ventilation and facilities for meals should be provided.

10. When the employee sleeps on the premises, the environment should be conducive to sleep – comfortable, temperature controlled, dark, quiet and free from interruption.

11. Intervals between 2 shifts should be long enough for the worker to have sufficient sleep, as well as to wash, eat and travel.

12. Overtime should be avoided, especially if shifts are long. Employees should not be called in on their days off.

13. Schedules should be flexible enough to meet the personal needs of the individual

14. Rotas should be set in advance to allow employees to plan for leisure time.

Annex C

Guidelines for Developing Bleep Policy

West Midlands Regional Task Force

Many hospitals/regions have produced policies regarding 'Call out of Medical Staff' or a 'Bleep Policy'.

It is recognised that any such policy must be tailored to the individual unit, and this paper therefore acts as a guideline to assist discussions when developing such a policy. It is unlikely that any policy will be perfect first time, and so monitoring must be ongoing.

It is recommended that a working group is developed. Representatives from the following groups should be considered: nurses, junior doctors, consultants, administrators, telephonists and portering staff.

Once agreed the bleep policy should be included in the induction programme for all hospital staff.

Introduction

1.1 A bleep policy should seek to consolidate existing good practice in the area of communication between nursing and medical staff. A bleep is a useful device when a doctor needs to be contacted urgently, but can be counter-productive if calls for routine items disrupt a doctor's working pattern. This may lead to inefficiency and annoyance for all staff. In general the bleep should not be used unless there is a compelling reason to call the doctor immediately. Examples of such reasons are given in section 2.

1.2 All qualified nurses/midwives are accountable for patient care, and should be able to contact the doctor if they are concerned about a patient's condition.

1.3 There will always be differences of interpretation with any policy; individual problems should be resolved by discussion between the doctor and the nurse. However it is recommended that each unit should develop a process for auditing the use of bleeps and the effects once a bleep policy has been introduced.

1.4 The bleep policy must take into account the working pattern of the junior doctors involved:

1.4.1 It is now a contractual requirement that any junior doctor working a traditional on-call type pattern should have a reasonable expectation of 8 hours rest during a 32 hour weekday duty period, and 12 hours rest during a 24 hour weekend duty period. At least 5 hours of this rest must be uninterrupted and continuous.

1.4.2 For partial shifts the period of rest should be 4 hours in each 16 hour duty period.

1.4.3 For full shift systems it is expected that doctors will work for effectively the whole time they are on duty (barring natural breaks)'.

1.5 Provision needs to be included in a bleep policy for the following:

1.5.1 Life threatening emergencies

1.5.2 Urgent calls

1.5.3 Non-urgent and routine calls

2. Life Threatening Emergencies

2.1 This situation is usually covered by the hospital's 'crash' call procedure.

2.2 It is recommended that in the event of such an emergency, the call to medical staff should be initiated by an appropriate person.

3. Urgent Calls

3.1 Individual hospitals should define what is understood by all staff to constitute an urgent call.

These may include:

3.1.1 Any major change in a patient's general condition that will not wait until the doctor's next routine visit.

3.1.2 Distressing symptoms which may cause the patient undue suffering if not dealt with before the next routine visit of the doctor to the ward.

3.1.3 Relatives requiring to see the doctor because of deterioration in a patient's condition.

3.1.4 The arrival of an urgent admission.

4. Non-Urgent Calls

4.1 A system which avoids the inefficient use of bleeps should be devised to meet local circumstances. The goal should be that the bleep system is reserved almost exclusively for emergency and urgent calls. Where this has been achieved the attitude and response time when answering bleep calls has markedly improved resulting in a more efficient and happy working environment.

4.2 Good planning reduces the need for non-urgent use of bleeps. Planning should include:

4.2.1 Development of a policy regarding patient falls (eg. When the patient has clearly not received significant injury or experienced severe pain).

4.2.2 Development of policy regarding the administration of minor analgesics, hypnotics or other medication.

4.2.3 How the writing/rewriting of prescription charts and the documentation of expected discharges can be organised so that they are always incorporated into routine work.

4.3 Other systems that should be considered include the following:

4.3.1 The ward should be aware of the next planned visit by the doctor. This could be either by use of a white or black board etc., or by agreed times for visit. The latter can be facilitated by wards having copies of doctors' working timetables with these times identified on them.

4.3.2 Out of usual working hours medical staff should visit all wards at a pre-agreed time(s) to deal with queries or problems. It should be recognised that unforeseen events and emergencies will always take precedence and therefore delays to certain wards are possible. There should also be regular routine visits at weekends, though these are likely to be less frequent than during the week.

4.3.3 It is recommended that each ward keep a book to co-ordinate work required of the doctor at the next ward visit. If introduced, nursing staff should list all the routine and non-urgent tasks for the doctor to fulfil at the next visit. The doctor should confirm with the nursing staff that an item has been resolved by crossing the item off in the book. This book should also be used by the medical staff to leave messages for the nursing staff. Doctors should be encouraged to contact the senior nurse on duty on arrival and when leaving the ward.

4.4 A system which allows relatives to book an appointment to talk to a doctor and/or other members of the team should be developed. Relatives must be made aware of these arrangements. The most appropriate person is a senior member of the team responsible for the patient. It is unreasonable to expect a doctor to speak to relatives of patients under the care of another doctor/team.

5. Using a Bleep

5.1 It is recommended that one member of the nursing staff per ward/area should be responsible for co-ordinating usage of the bleep system. Whenever possible at night, calls to doctors should be channelled through the nursing sister on duty. In general student nurses should not bleep doctors at night unless in an emergency.

5.2 Most hospitals have systems whereby a bleep can be activated from a telephone without going through the switchboard. Entering the wrong number can be a common problem resulting in either the wrong doctor, or no doctor at all being called. It is prudent therefore that the bleep number is double-checked, and if there is no response to contact switchboard sooner rather than later.

5.3 In many circumstances it is more appropriate for a doctor retiring to bed to leave the on-call room telephone extension number. If the same on-call room is always used by a particular grade of staff, the telephone extension should be recorded in a prominent place on each ward. It is usually easier to respond to a telephone call than to a bleep whilst asleep.

5.4 In some circumstances communication can be improved if the doctor always informs the ward (or switchboard) when retiring to bed, or when working during the night. This may even form the basis for a system to co-ordinate calls regarding non life-threatening situations. Units may wish to consider that at night a nominated doctor may be on-call for second on type work for the whole of the hospital (or across more specialties/wards than usual).

6. Associated Considerations

6.1 When considering the introduction of a bleep policy it is recommended that the following policies be considered at the same time.

6.2 Unit drug policy incorporating nurse administration of IV drugs and nurse administration of drugs without prior medical prescription.

6.3 Confirmation of expected death.

Annex D

Protocol for the re-banding of training grade posts (England)

Issue

1. There has been some confusion and variable quality of process during the exercise to bring PRHO posts into compliance for the 1st August 2001. As a result, the national issue of further joint guidance and documentation is felt necessary.

Action

2. Action Teams must:

   - Ensure that in all instances where re-banding of posts is carried out, the process as laid out in the attached proforma document is followed in all cases, and recorded using the proforma a copy of which will be retained by the Action Team together with supporting documentation.

Background

3. The procedure for re-banding existing posts is laid out in Advance Letter AL(MD)2001/01, in Terms and Conditions of Service, and added to by Steve Barnett's letter to the service of 12 March 2001. The Department and the BMA agree that a mechanism which re-bands posts using in-post monitoring, rather than assessment of compliance on paper or using other theoretical means, is the proper way of proceeding in the vast majority of cases. Such re-banding is most effectively carried out mid-post in, for example, May or November, to allow rotas to bed in and to allow 'fine tuning' after monitoring. Both sides accept, however, that there will be a few occasions, where significant changes to rotas or staffing levels make it impractical to fully implement changes to working practices before new staff come into post, where it will be necessary to assess the likely banding of a rota in advance of its implementation, to allow an employer to offer posts to new employees on a realistic basis.

4. Such occasions will be rare. It cannot be taken for granted, for example, that full shifts will always be compliant as natural breaks may not be

achieved or shifts may over-run. Similarly, the rest requirements of other types of rota pattern cannot be assumed and it will therefore not be appropriate to assume that particular working patterns can be offered at a predicted band. However where for example service reconfiguration or merger means that it is not possible to implement and monitor a full rota before its proposed date of introduction, the facility is needed to allow an employer to offer a post at an expected band. This must be dependant upon the employer demonstrating to the satisfaction of the Action Team that it was not possible to implement a full rota in advance, although the employer should where possible make arrangements to test in advance those parts of the new arrangements most likely to be non-compliant. It also places a responsibility on the employer to monitor and confirm the banding within a fixed timescale following the introduction of the new working arrangements.

5. The pro-forma attached covers the normal re-banding process, with the facility to allow for the provisional re-banding of a post in advance of practical monitoring.

6. As with all instances of backdating pay under the banding system, repayment where a lower band that has been paid is subsequently found to be inappropriate must be paid from when salaries at the provisional lower band were first paid.

Notes

1. The Proforma should be used both as a checklist to ensure that all the necessary stages of the re-banding process have been adhered to, and as a record of the process for payroll purposes.

2. Column headings are to be interpreted as:

   – Stage: a step in the process which must be completed

   – Evidence Required: documentation/data/input that must be available in order to facilitate a decision at the relevant Stage

   – Documentation: the formal confirmation that the Stage has been followed through to successful completion.

3. In the Proforma, references to the Action Team should be taken to refer to the Regional Improving Junior Doctors Working Lives Action Team or any successor body.

4. Where a decision from the Action Team is indicated, such a decision must be agreed by at a minimum, both junior doctor employee and BMA representation, and will be co-ordinated by an officer acting with the full authority of, and nominated by, the Action Team Chair.

5. The order of the stages in the Proforma does not follow the order stated in AL(MD)1/01; this is to follow a logical process. It would for example be appropriate in most cases for the Action Team to discuss and agree revised arrangements with juniors and their employers in advance of seeking educational approval.

6. In recognition of the range of different monitoring processes used in the Regions and not wishing either to duplicate current practices or to create an unnecessary burden on Trusts we do not propose to be prescriptive in the way supporting monitoring data is to be presented. However:

   – evidence of monitoring must conform to the requirements of the documentation issued as guidance accompanying HSC 2000/031, and

   – monitoring and/or analysis data produced by some software packages such as ND2000 will be acceptable for the purpose of this exercise – further guidance will be issued in due course.

7. Where provisional banding is authorised monitoring should take place within six weeks of the implementation of new working arrangements, and all necessary actions taken to ensure that the results of the monitoring are reflected in banding and salary.

APPROVAL TO CHANGE BAND – ENGLAND			
Trust:		Hospital:	
Specialty(ies):			
Numbers of Doctors in Working Arrangement by Grade			
PRHO:	SHO:	SpR:	Other:
Working Pattern:			
Current Banding:		Proposed Banding:	Effective Date:

Stage	Evidence Required	Documentation	Confirmed Y/N
1a. Consult post-holders on proposed changes and obtain agreement of the majority participating in the working arrangements.	Approval of majority of current/incoming post-holders	Template signed by Trust junior doctor representative confirming agreement of majority of current/incoming post-holders	
1b. Submit details of the new working arrangements to the Action Team for information and invited comment.	Full details of proposed working arrangements and/or rota summary (eg from ND2000 software)	Letter signed by Action Team Chair or delegated authority confirming theoretical compliance of working arrangements	
1c. Obtain agreement from Clinical Tutor for education purposes.	Full details of proposed working arrangements Comments of Action Team	Letter signed by Dean or delegated authority confirming educational acceptability of working arrangements	

If exceptionally and because of the impracticality of full implementation of new working arrangements a Trust wishes to offer future posts at an expected banding in advance of actual monitoring, approval must be sought from the Regional Action Team (or its equivalent) in advance of making any such offer. Any offer made in these circumstances will be strictly provisional, and must be confirmed by monitoring following the implementation of new working arrangements.

Stage	Evidence Required	Verification	Confirmed Y/N
2. Submit request for provisional approval of working arrangements to Action Team	Signed letter from Trust giving reasons for inability to fully monitor before rebanding. Evidence of full or partial testing/monitoring of proposed arrangements	Letter signed by Action Team Chair or delegated authority authorising an offer of provisional banding.	
Current Banding:	**Provisional New Banding:**	**Implementation Date:**	
Action Team Signatory		**Date:**	

Stage	Evidence Required	Verification	Confirmed Y/N
3.Monitoring of working pattern and confirmation of banding	Completed monitoring returns from 75% of doctors on rota over full 2 week period Summary of monitoring results	This signed template	
Previous banding:	**Verified New Banding:**	**Effective Date:**	

Trust Signatory Date:
(Designation)

Rota Signatory Date:
(Junior Doctor LNC representative)

Action Team Signatory Date:
(Designation)

Annex E

Protocol for the re-banding of training grade posts (Wales)

APPROVAL MECHANISM TO CHANGE BAND – WALES		
Trust:	Hospital:	
Specialty:		
Grade(s):	Numbers of Doctors (for each grade):	
Current banding:	Proposed Banding:	Effective date:

Steps (source AL (MD) W1/01)	**Required Evidence and Verification**	**Confirmed / Signed**
1. Consult postholders on changes proposed and obtain agreement of the majority participating in the rota 2. Submit details of the new rota to the SAFER Taskforce for information and comment	Copy of Rota Summary Report signed by majority of participants on rota attached.	
3. Obtain agreement from Postgraduate Dean for education purposes	Signed letter from Dean attached or signature of Postgraduate Organiser/Clinical Tutor, confirming acceptance of change.	
4. Monitoring of working pattern	Monitoring Summary Report signed by participants attached. **(source HSC 1998/240)**	

REST INFORMATION

Please provide information on each type of shift worked.

Name of shift and when (e.g. weekday partial shift, weekend partial shift, night full shift, weekend on-call, etc.)	**Percentage of occasions when New Deal rest requirements are met**

SIGNATURES

1. Clinical Director or lead consultant with management responsibility of rota	
Designation	
2. Rota signatory *(Trust junior doctor representative or representative of doctors working rota)*	
Designation	
3. Trust signatory *(New Deal Project officer or Personnel officer)*	
Designation	

Annex F

Educational and Service Balance Issues: International Comparisons

These are often the most hotly debated issues when changes to working patterns are suggested. The need to ensure educational quality is sometimes used as an argument to resist change to the status quo, rather than for sound educational reasons.

Junior doctors are in the Health Service to be trained, not simply to provide services. We need to aim for an equilibrium which will provide good quality training and service in balance.

Information from other European Union and Scandinavian countries and developed Commonwealth countries suggests that while many of the countries examined have similar problems to our own, several have already addressed them, and are providing high quality healthcare, with good training systems while incorporating working patterns that are more compatible with EWTD compliance. Examples include Australia[16], New Zealand, Denmark and the Netherlands. Common factors amongst these countries is:

- that they enjoy a much higher doctor/patient per capita ratio than the UK (1.7/1000 in the UK compared to 2.2-3.0/1000 in the aforementioned nations)[35];
- that shift type patterns of work are more common – although *not* universal – and have been accepted, often in the face of considerable resistance, as providing acceptable delivery of training, if well structured;
- that patient care is more often delivered as part of a consultant delivered service;
- that the principle of lowering hours, stress and workload as an *enhancement* to an atmosphere and culture of good training, rather than a block to it is accepted.

Denmark has had tightly limited hours for doctors in training since the wartime years, and the Netherlands implemented change that would fit the EWTD in 1993. Both countries have excellent quality of care outcome statistics[36], albeit with differing population dynamics to the UK.

This should provide us with optimism that with proper investment in numbers of staff, and development of culture, that the EWTD should be attainable in the UK, while still maintaining the high standards of training, education and quality of patient care that is expected.

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