

THE NHS STAFF COUNCIL
WORKING IN PARTNERSHIP

HEALTH, SAFETY AND WELLBEING
PARTNERSHIP GROUP



The health, safety and wellbeing of shift workers in healthcare environments

February 2020

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Introduction

A significant number of staff involved in delivering around the clock care in healthcare environments are shift workers.

Definition of a shift worker under working time regulations

Shift worker means any worker whose work schedule is part of shift work, and shift work means any method of organising work in shifts whereby workers succeed each other at the same workstations according to a certain pattern, including a rotating pattern, and which may be continuous or discontinuous, entailing the need for workers to work at different times over a given period of days or weeks.

While patients are outside of the scope of this document, they are reliant on a workforce dedicated to providing out-of-hours care.

Shift work has many benefits for the employee. It allows employees to condense their working time to improve work-life balance and to manage carer responsibilities for instance.

However, poorly designed shift patterns, aligned with poor sleep patterns and environmental factors can have a detrimental impact on employee health and patient outcomes. Poorly managed shift patterns can, for example, increase sickness absence rates, presenteeism, increased at work errors and patient safety incidents, and associated costs (Health and Safety Executive 2009). Therefore, it is important to ensure that safeguards are put in place to support safe working practice around shift working.

This guidance has been developed incorporating good practice on shift working from the Health Safety Executive. This guidance has been developed in partnership with trade unions and management for the benefit of healthcare organisations.

It advises on key health, safety and wellbeing considerations associated with shift work in healthcare organisations and to encourage partnership working between managers and union representatives to mitigate the impacts on staff and the organisation.

Unless otherwise stated, all references in this document are from **Health & Safety Executive sources**.

This guidance is applicable to staff covered by the NHS Terms and Conditions of Service Handbook.

How shift work can impact on health, safety and wellbeing

Impact on the individual

The body's natural circadian rhythm is our body clock which is tuned to where we live on the planet, the time of the sun rising and setting, and to the chemical changes that occur between waking and sleeping. Shift work can negatively affect this rhythm and the clearest way to describe this is the well-known phenomena of jet lag.

In addition to being a risk to health, fatigue associated with sleep deprivation can impact on patient safety (e.g. increased risk of medication errors) and the ability of the shift worker to drive safely, particularly at the end of a night shift (Health and Safety Executive 2017).

Reported health effects

- Fatigue and sleep disorders
- Obesity
- Type 2 diabetes
- Cardiovascular disease
- Digestive disorders
- Mental ill health (anxiety, depression)
- Some evidence to suggest impact on reproductive health
- Some evidence to suggest increased incidence of cancer

Health and Social Care Information Centre (2014)

Tolerance to shift work can also alter with age, long-term health conditions and during pregnancy. (European Agency of Safety and Health 2016).

WHAT CAN EMPLOYERS DO?

This section looks at how employers can take proactive steps to implement safe shift patterns, manage workloads at night and make adjustments for employees that may require them.

Many organisations have e-roster systems set up which are designed to safeguard staff against poor roster design and to ensure compliance with the Working Time Regulations 1998. These are common in many clinical work areas. If organisations do not have these systems or override some of the built-in rules of roster systems, care must be taken to ensure these working patterns do not create risk.

Managing organisational risks

- **Compliance with the Working Time Regulations**

The Working Time Regulations 1998 (WTR), which originated from the European Working Time Directive, are intended to support the health and safety of workers by setting minimum requirements for working hours, rest periods and annual leave.

In general terms the key elements include:

- A limit of an average of 48 hours a week (usually averaged over a 17-week reference period) unless the worker chooses to opt out.
- Paid annual leave of 5.6 weeks per year (pro rata).
- 11 hours consecutive rest in any 24-hour period.
- Workers must have a 20-minute break away from the immediate workstation if working longer than six hours.
- A weekly rest period of not less than 24 hours.
- A limit on the normal working hours of night workers to an average eight hours in any 24-hour period.

- Night workers should not work more than an average of eight hours in a 24-hour period (this is also averaged over a 17-week reference period).
- Night shift workers are entitled to a free regular health assessment.

Definition of a night worker under working time regulations

A night worker is someone who normally works at least three hours during the night period, which is the period between 11pm to 6am, unless the worker and employer agree a different night period. Night workers should not work more than an average of eight hours in 24-hour period. This average is usually calculated over a 17-week reference period, but it can be over a longer period if the workers and employer agree. Regular overtime is included in the average and workers can't opt out of this limit.

Source: ACAS 2017

Where shifts cannot be designed in any other way, there is an exemption for daily and weekly rest for shift workers (e.g. where a shift worker changes shift and cannot take a daily or weekly rest period between the end of one shift and the start of the next).

In these cases, compensatory rest would apply. Organisations should have compensatory rest agreements to ensure that compensatory rest is taken and that the risk of shift worker fatigue is reduced.

Night shift workers health assessment

Regulation 7 of the Working Time Regulations 1998 requires an employer to give a night worker the opportunity for a free health assessment before assigning him or her to work, and at regular intervals thereafter.

A common approach to these assessments might be for managers to give employees a health questionnaire to complete*. Should any issues be highlighted by the questionnaire that may affect their ability to perform night work, the employee should be referred for a specialist occupational health assessment to determine whether they are fit to undertake or continue night work

Special consideration needs to be given to the learning and development needs of night shift workers

*A template example health risk assessment is included in the appendix.

adapting to shifts for the first time and those with pre-existing health conditions including those who take time dependent medication

3) Evaluate the risk and decide on precautions - shift work cannot be eliminated within the health care sector, so steps need to be taken to minimise or control the risks from shift work. For further information on reducing the risk, see number 5.

4) Record the findings - for instance, what measures will you implement to ensure rest breaks are taken?

5) Review risk assessment and update accordingly - review your risk reduction measures to check effectiveness including qualitative data such as absenteeism, staff turnover and accident rates and qualitative data – asking shift working staff for their views on fatigue and health and safety.

Risk assessments

Under the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999, employers should treat shift work like any other workplace hazard. Using the five steps to risk assessment can help organisations identify risks and implement best practice measures to control the risks:

1) Assessing the risks of shift work e.g. by looking at accident rates, near misses and drug errors. If available, analyse data and trends on the time and incident occurred to help identify issues with shift patterns.

2) Decide who may be harmed and how – while all workers are at risk from shift work some groups may be more vulnerable than others e.g. pregnant workers, older workers, young workers

Equality Act 2010

Workers with long-term conditions who are classified as disabled under the Equality Act require reasonable adjustments to their role. For example, if a condition is exacerbated or difficult to control due to shift working patterns, the employer should obtain occupational health advice on what changes can be made as a reasonable adjustment to support the worker. Examples include extra breaks to take medication on time, limiting the number of night shifts or, in some cases, excluding from nights. Any adjustments should be regularly reviewed to ensure they are still required.

Pregnant workers

Night shift and long working hours are recognised as a risk to pregnant workers. Under the **1999 Management of Health and Safety at Work Regulations** risk assessments must be carried out to identify any health and safety risks to new and expectant mothers and measures put in place to protect the pregnant employee and the unborn child. Alternatives such as suitable alternative day time work on the same terms and conditions should be considered as adjustments.

Workload Management

High, monotonous workloads during a shift is a major contributor to stress and fatigue. The HSE's management standards (Health and Safety Executive, 2017) can be used to assess stress caused by work demands. Wherever possible, safety-critical work should be avoided during the night, early hours of the morning and towards the end of long shifts.

Wherever possible, variation in work activity helps reduce risk of mistakes caused by involuntary automation (otherwise known as autopilot).

Devising Safe Shifts

Having effective, well-managed and well-designed shifts can considerably reduce the risk of potential harm to staff and patients.

Rotating shifts

Forward rotating shifts (i.e. clockwise from early to late as opposed to late to early) are less disruptive to the internal body clock

Timing of shifts

The HSE advises avoiding shifts that start before 7am, therefore this should be considered when devising shift patterns. If the shift only allows for shorter breaks, facilities close to the workplace should be identified to allow maximum opportunity for an adequate break.

Duration of shifts

There is a general agreement from safety experts that 12-hour shifts should be no longer than 13 hours in total duration, including adequate unpaid rest breaks (HSE 2006). Some studies have identified increased risk to both patients and staff from shifts of 12 hours or more (Ball et al 2015). However, these shifts are often popular with staff, due to the work-life balance benefits and savings on childcare and travel costs. The HSE advises split shifts should be avoided as they do not allow enough recovery time between shifts.

Tolerance of longer shifts

Tolerance can vary with age. Wherever practical, a choice of shift length should be offered in order to support older employees work rotation shifts for longer.

Did you know...?

NHS Improvement advises publishing rosters a minimum of six weeks in advance, ideally 12 weeks.
(NHS Improvement, 2019)

Rest breaks within shifts

The working time regulations require a minimum of 20 minutes if the shift is six hours or longer. However, more breaks are encouraged to reduce fatigue during longer shifts.

Best practice research from the HSE and others supports the benefits of a short period of sleep or 'power nap' of around 20 minutes during an authorised break as a way of coping with fatigue during a night shift or a long shift. Research from NASA highlighted that their astronauts increased their effectiveness by over 30 per cent following a nap of between 14-19 minutes. (Health and Safety Executive 2009; Royal College of Physicians 2006, NASA).

Rest break between shifts

Under the Working Time Regulations 1998, a minimum of 11 hours continuous daily rest is required but regulations recognised that this may not be possible due to shift work patterns. In this case, compensatory rest must be put in place and organisations should have an agreement to accommodate this (see NHS Terms and Conditions of Service Handbook section 27). The HSE also recommend limiting consecutive working days to between five and seven, or between two and three when shifts are long (i.e. 12-hour shifts) with regular free weekends to be built into shift schedules.

Overtime and shift swapping

Overtime and shift swapping will be a reality in a pressurised healthcare environment. However, management should check staff's work schedules before agreeing to overtime to ensure excessive hours are not being worked. Trusts should have a system in place to monitor ongoing compliance with the working time regulations and the opt out.

Shift swapping should be monitored and recorded to ensure staff are getting the necessary rest periods and not working excessive hours. Managers should have agreed protocols for covering unplanned absences of shift workers. Unless given permission to do so by the member of staff, managers should avoid calling in staff on their days off.

Other considerations

Driving and fatigue welfare

The Royal Society for the Prevention of Accidents (ROSPA 2011) recognises that drivers who work shifts are a high-risk group for fatigue related car accidents, especially at the end of a night shift or a long shift. There have been a number of health care workers involved in serious and sometimes fatal car accidents when driving home.

While the duty of care to other road users lies with the individual driver, it is good practice for employers to have provisions in place such as quiet rest areas where the driver can have a 'power nap' before driving home or the provision of taxis or someone to take the person home. This is a particular risk where the shift has gone on longer than expected due to an emergency or unforeseen circumstance.

Workers who drive at work during their shift may also be at risk of fatigue related car accidents, particularly between 2am and 6am and when working long hours. Employers have a duty to assess the risk of driving related fatigue and put measures in place to reduce the risks including adequate rest breaks.

Healthy eating

The Five Year Forward View (NHS England 2014) identified that three quarters of hospitals do not offer healthy food to staff working night shifts and called on organisations to address this issue. The provision of healthy food options in vending machines and access to facilities to cold store and reheat food brought in from home is an important way employers can support the health and wellbeing of shift workers.

Information and training

It is important that shift workers are provided with information and training on managing the risks of shift work, including guidance on coping strategies for night shift work. Access to learning and development programmes must also be considered as night shift workers should not be excluded from learning and development programmes, including mandatory training.

Physical environment

Shift workers must have easily accessible facilities to rest and replenish away from the immediate workplace. Lighting and temperature should also be considered for those working a night shift; adequate lighting so work can be carried out safely and at a comfortable temperature to compensate for an overnight drop in body temperature.

Adapted from HSE 'Managing Shift Work' Health and Safety Executive 2006

Good practice example

The HALT (Hungry, Angry, Late, Tired) campaign makes staff aware that taking enough breaks can also help them to provide the highest standard of patient care, by putting them in a position to make the best decisions for patients.

Staff throughout the trust are asked to plan their own breaks during the work day, and managers and team leaders are advised to lead by example in order to create a 'take a break' culture.

The launch of the **HALT campaign** coincided with World Sleep Day on Friday 17 March 2017. During that day, staff across the trust received information, attended workshops and listened to presentations about the importance of taking regular breaks.

Guy's and St Thomas' positively supports staff across the trust who work night shifts

WHAT CAN EMPLOYEES DO?

People vary in the way they adjust to and cope with shift work. Some people will adjust to night shift or early shift work better than others. For others, such as those with health conditions, lower levels of fitness, insomnia and domestic responsibilities, it can be harder to adapt.

Listed below are some examples of measures, which can be found in **Health & Safety Executive sources**, to reduce the individual health impacts and safety issues related to shift work:

- Eating small amounts often throughout the night will help keep energy levels up. Foods that are easy to digest such as pasta, rice, bread, salad, fruit, vegetables and milk products are best. Fatty, spicy and/or heavy meals are more difficult to digest, which can make individuals feel drowsy rather than alert. They may also disturb sleep. Sugary foods, such as chocolate may provide a short-term energy boost, but this will be followed by a dip in energy levels
- Employees should obtain medical advice from their doctor and/or occupational health department if they require regular medication such as insulin for diabetes or suffer from a chronic condition such as epilepsy. Employees should discuss reasonable adjustments under the Equality Act 2010 e.g. ensuring adequate breaks, adjusting shift cycles etc.
- Have a short sleep before the first night shift.
- If coming off night shifts, have a short sleep and go to bed earlier that night.
- Keep to a suitable sleep schedule once identified.
- Take regular short breaks during the shift if possible.
- Get up and walk around during breaks.
- Plan to do more stimulating work at the times when feeling most drowsy.
- Keep in contact with co-workers as this may help all individuals to stay alert.

- Consider using public transport or taxis rather than driving.
- Exercise briefly before making a journey.
- Share driving if possible.

Support from GP or occupational health

- Employees working regular night shifts are entitled to a free night worker health assessment. Employees should contact their line manager and occupational health service to find out more.
- Employees experiencing health problems related to shift work e.g. difficulties sleeping, should seek prompt advice from their GP and/or occupational health service.

Reporting concerns

Employees should raise any concerns about risks such as the impact of fatigue and poorly designed shift patterns on patient safety to your manager and/or trade union safety representative. Any near misses or incidents related to fatigue must be reported as per local policies.

Professional responsibilities

While employers have a legal responsibility to protect the health and safety of employees and patients, healthcare professionals have a responsibility to practice safely and raise concerns under their respective professional codes.

Issues such as an inability to take scheduled rest breaks, insufficient rest periods between shifts and pressure to carry out excessive overtime are all legitimate issues to act on and raise professional concerns about if they are leading to fatigue and subsequent risk of errors and risks to patient safety.

Employees should also consider the impact of multiple jobs on working hours on their ability to practice safely.

Adapted from HSE's **Hints and Tips for Shift Workers**

THE IMPORTANCE OF PARTNERSHIP WORKING

Trade union safety representative working in partnership with managers to support improvement in staff health, safety and wellbeing can assist to ensure optimum shift patterns are in place that comply with the relevant standards and working time regulations outlined in this guidance.

The Health and Safety Executive recognises that change is a key stressor and changing shift patterns without sufficient consultation with staff and their representative may lead to poor wellbeing and stress related illness. For those with caring responsibilities it can be even more stressful as many plan caring arrangements around their shift work.

Furthermore, changes to shift patterns may impact on personal safety e.g. moving to a twilight shift which may finish at 2am and the implications for shift workers leaving work and getting home safely in the early hours. For these reasons it is important the employers work with both trade union stewards and safety representatives when looking at shift working patterns.

Equally, it is important to consider the requirements of the service to deliver safe patient care around the clock when discussing shift patterns and options for flexible working.

Under the Safety Representatives and Safety Committee Regulations 1977, safety representatives have a right to be consulted on matters that have the potential to affect the health and safety of members they represent. Consultation should be in 'good time' i.e. before the changes take place and representatives should be given adequate time to discuss the matter with the members they represent and feedback their concerns.

The HSE stresses the importance of employers consulting and involving trade unions safety representatives in the risk assessment process and in getting views on the advantages and disadvantages of current shift systems. Working with safety representatives the HSE suggest that employers seek the views and stimulate discussion by:

- encouraging workers to share their experiences of shift work
- discuss which shifts are hardest and why
- provide examples of different shift work schedules and invite contributions of ideas.

For further information on partnership working, please see our **partnership guidance** and **stress management guidance**.

References

Health and Social Care Information Centre (2014) Shift Work

<http://www.nhs.uk/news/2014/12December/Pages/Shift-workers-more-likely-to-report-poor-health.aspx> accessed 2.8.2017

Health and Safety Executive (2017a) Human Factors: Fatigue

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European Agency for Safety and health at Work 2016: **The ageing workforce: Implications for occupational safety and health** A research review

<https://osha.europa.eu/en> accessed 2.8.2017

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www.hse.gov.uk accessed 2.8.17

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<http://www.acas.org.uk/index.aspx?articleid=1373> accessed 2.8.17

Health and Safety Executive (2017b) Management Standards

<http://www.hse.gov.uk/stress/standards/> accessed 2.8.2017

NHS Improvement: E-rostering the clinical workforce: levels of attainment and meaningful use standards June 2019 accessed 22/10/2019

https://improvement.nhs.uk/documents/5378/E-rostering_meaningful_use_standards.pdf

Ball J, Maben J, Murrells T, Day T, Griffiths P 2015 12 hour shifts: Prevalence, views and impact
National Nursing Research Unit

Royal College of Physicians (2006) working the night shift: preparation, survival and recovery
London: RCP

NHS England 2014 Five Year Forward View

Royal Society for the Prevention of Accidents (2011) Driver fatigue and road accidents, Birmingham: RoSPA

Further resources and information

CSP guidance on posture and sleep

<https://www.csp.org.uk/publications/good-sleep-guide>

UNISON Guidance on working patterns

<https://www.unison.org.uk/get-help/knowledge/working-patterns/>

ACAS guidance on changing patterns of work

www.acas.org.uk

Health and Safety Executive 2006 Managing Shift Work

www.hse.gov.uk accessed 2.8.17

Royal College of Nursing: A Shift in the Right Direction available at

www.rcn.org.uk/publications

Health Assessment Questionnaire for Night Workers

Name Job Title

Department Directorate

Site

Please specify your weekly hours of work / shift pattern

The following medical conditions could possibly affect your health and ability to safely carry out night work, or could be made worse by night work.

Do you suffer from any of these conditions?	Yes	No
a) Diabetes?		
b) Heart or circulatory problems?		
c) Stomach or intestinal problems, such as ulcers?		
d) Any medical condition which causes difficulty sleeping?		
e) Chronic chest disorders where night time symptoms may be particularly troublesome?		
f) Any medical condition requiring medication on a strict timetable?		
g) Any medical condition where the timing of meals is particularly important?		
h) Any mental health problems which may be affected by night work?		
i) Any other medical condition which may affect your ability to work safely at night?		
j) Are you a new or expectant mother? (optional question)		
k) If you have worked at night before, did this cause any ill health?		

If 'yes' to any of the above, please give details i.e., when condition developed, is this new, how severe, its effect on you, how well controlled and treatment so far.

.....
.....

Do you believe that any of these are made worse by night work? Yes No

If 'yes', please give details:

.....
.....

Declaration

I certify that all the answers given above are true to the best of my knowledge and belief.
I understand that no medical details will be divulged without my permission to any person outside Occupational Health, but an opinion about my fitness for night work will be issued to management.

.....

The NHS Staff Council's Health, Safety and Wellbeing Partnership Group (HSWPG) is a sub-group of the staff council and was established to:

- raise standards of workplace health, safety and wellbeing in healthcare organisations
- promote a safer working environment for all healthcare staff
- promote best practice across the NHS and independent sector.

The group has produced a range of useful guidance and information on topics such as, lone workers, managing musculoskeletal disorders and back pain, sickness absence and stress.

 www.nhsemployers.org/HSWPG

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 [@NHSE_Wellbeing](https://twitter.com/NHSE_Wellbeing)

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