

# The health, safety and wellbeing of shift workers in health and social care environments

March 2018



# Contents

Introduction	3
How shift work can impact on health, safety and wellbeing	3
How to manage risk as an organisation	4
How to manage risk as an individual	8
The importance of partnership working	11
References and further information	12



## Introduction

In order to deliver around the clock care, the vast majority of workers in health and care environments are assigned shift work patterns.

Shift work can be defined as work that takes place on a schedule outside the traditional 9am to 5pm working day. It can include night shifts, rotating shifts, early shifts, late shifts or long days.

This guidance has been developed to highlight some of the key health, safety and wellbeing issues associated with shift work; and support managers to work in partnership with union representatives to mitigate the impact on staff and the organisation. Whilst patients are outside of the scope of this document, by mitigating the impacts on staff, there is likely to be better outcomes for patients.

This guidance covers staff under Agenda for Change terms and conditions but can be used to promote best practice in other areas

### Reported health effects:

- Fatigue and sleep disorders.
- Obesity.
- Type 2 diabetes.
- Cardiovascular disease.
- Digestive disorders.
- Mental ill health.
- Impact on reproductive health.
- Increased incidence of cancer.

*Health and Social Care Information Centre (2014)*

## How shift work can impact on health, safety and wellbeing

Your circadian rhythm is an internal body clock that cycles between alertness and sleepiness at regular intervals. It is also known as the sleep/wake cycle. Shift work can negatively affect this rhythm and the clearest way to describe this is the well-known phenomena of jet lag. The same sensation and symptoms occur when we are sleep deprived due to trying to stay awake when our body tells us we should be sleeping.

### Fatigue associated with sleep deprivation can impact on:

- employee health
- patient safety (for instance increased risk of medication errors)
- safety while driving (Health and Safety Executive 2017).

For many employees shift work provides a considerable bonus and allows greater flexibility around childcare. Shift work can affect people differently, from experiencing no impact to significant changes in health. Those with long term conditions and pregnant workers may be more vulnerable to the health impacts of shift work (European Agency of Safety and Health 2016).

## Organisational Impact

Shift work can impact on an organisation. 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).

Whilst research makes it clear that there are inherent detriments to health from working shift patterns this document will provide advice on how organisations and individuals can mitigate and manage the risk.

## How to manage the risks - organisational level

### Compliance with the Working Time Regulations

The Working Time Regulations 1998, which transpired 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)
- eleven 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 cannot 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 for example 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.

Employers must comply with working time regulations by keeping adequate records to show limits on maximum working times and retain these records for two years from the date they were made.

## Night shift workers health assessment

*Regulation seven of the Working Time Regulations 1998 requires an employer to give night workers 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 is 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.*

## Risk assessment

Under the 1974 Health and Safety at Work Act and the 1999 Management of Health and Safety at Work Regulations, employers should treat shift work like any other workplace hazard. The following five steps can be used to identify risks and implement control measures.

- 1) **Assess the risk of shift work** - look at accident rates, near misses, overtime data (unpaid and paid), drug errors and staff morale. Analyse trends on the time of day of an incident (if available) to help identify issues with shift patterns.
- 2) **Understand the risks** - while all workers are at risk from shift work some groups may be more vulnerable than others for example pregnant workers, workers adapting to shifts for the first time and those with pre-existing health conditions (including those who take time dependent medication).
- 3) **Decide on precautions** - implement best practice guidance on shift working, such as the HSE guidance on managing shift work (Health and Safety Executive 2006).
- 4) **Record the findings** - for instance what measures you will be taking to ensure rest breaks are taken.

- 5) **Review risk assessments and update accordingly** - review your risk reduction measures to check effectiveness including qualitative data such as absenteeism, staff turnover, accident rates and qualitative data - ask shift worker staff their views on health and safety and fatigue.

## Equalities Act 2010 - shift workers with disabilities

*Workers with long term conditions such as diabetes, epilepsy or a psychiatric illness may be classified as disabled under the Equalities Act. Where this is the case, employers are required to make reasonable adjustments to their role. For example, if a condition is difficult to control due to shift working patterns, the employer is likely to be required to make changes to working arrangements as a reasonable adjustment to support the worker. Reasonable adjustments can include extra breaks to take medication on time, limiting the number of night shifts or in some case excluded from nights.*

## Pregnant workers

*Under the 1999 Management of Health and Safety at Work Regulations, assessment 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. Night shift and long working hours are recognised as a risk to pregnant workers. If a specific risk has been identified to the pregnant worker and/or her GP/midwife provides a certificate stating she should not work night shifts her employer must offer suitable alternative day time work on the same terms and conditions. If that is not possible, the employer must suspend her from work on paid leave for as long as is necessary to protect her health and safety and that of the unborn child.*

## Reducing the risk: Best practice for health, safety and wellbeing of shift working

Once the risk assessment is carried out, organisations can reduce risks by following best practice guidelines including that developed by the Health and Safety Executive (2006).

Key areas that need to be addressed include:

**Workload** - high workload 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.

**Work activity** - wherever possible allow for variation in work activity.

**Shift patterns** - faster forward rotating shifts can minimise the risk to the internal body clock. However, such shifts are often disruptive and conflict with workers' personal commitments. Staff should have predictable shift patterns and last-minute changes should be avoided. NHS Improvement advises publishing rosters six weeks in advance (NHS Improvement, 2016).

**Timing of shifts** - it is important to consider the start time of shifts. The HSE advises avoiding shifts that start before 7am. Special consideration needs to be given to the learning and development needs of night shift workers.

**Duration of shifts** - there is considerable variation in and much debate on length of shifts within the health sector. Safety experts generally agree that shifts longer than 12 hours are to be avoided. Some studies have identified increased risk to both patients and staff from shifts of 12 hours or more (Ball et al 2015). However, shorter shifts are sometimes less popular with staff as they will normally have to work more in a block and have less time off (impacting on wellbeing through less leisure time, issues around childcare and the cost of travelling into work more often).

Wherever practical, a choice of shift lengths should be offered. If 12-hour shifts are necessary, safe guards such as adequate rest breaks should be put in place. Split shifts should be avoided as they do not allow enough recovery time between shifts.

### **Rest breaks within shifts and power naps**

- the HSE advise organisations to encourage and promote the benefits of frequent and regular breaks to reduce fatigue. The HSE recommend, where possible allowing workers choice over the timing and length of breaks. The working time regulations require a minimum of 20 minutes if the shift is six hours or longer. However more breaks will be required to reduce fatigue during longer shifts. The HSE also recognise the benefits of a brief 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 (Health and Safety Executive 2009; Royal College of Physicians 2006). Longer periods of sleep should be avoided as workers may wake up feeling unrefreshed and less alert.

**Rest break between shifts** - workers need sufficient time between shifts to commute, eat meals, sleep and participate in domestic and social activities. Under the working time regulations, a minimum of 11 hours daily rest is required but it is recognised that this may not be possible due to shift work patterns. In these cases, compensatory rest must be put in place and organisations should have an agreement (see Agenda for Change agreement section 27). The HSE also recommend limiting consecutive working days to five to seven or two to three when shifts are long (for instance, 12 hours). Regular free weekends should be built into shiftschedules.

**Physical environment** - shift workers must have easily accessible facilities to rest and replenish away from the workplace. Healthy food options should be made available for night shift workers, as recommended by NHS England. Lighting and temperature should also be considered for those working a night shift; adequate lighting so work can be carried out safely and a comfortable temperature to compensate for overnight drop in body temperature.

**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.

**Overtime and shift swapping** - management should check work schedules before agreeing to overtime to ensure excessive hours are not being worked. Hours of overtime and shift swapping need to be monitored and recorded to ensure ongoing compliance with the working time regulations. 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.

**Welfare** - health assessments should be put in place for night shift workers and shift workers should be encouraged to seek support from their GP and occupational health service if their health is suffering. When driving following a night shift, good practice may include organisations providing rest facilities where staff can sleep for a couple of hours, a taxi service or a first aid driver to take the member of staff home. Predictable shift patterns can contribute to the wellbeing of shift workers allowing them to plan their social life and domestic arrangements. Predictable shift patterns can contribute to the wellbeing of shift workers allowing them to plan their social life and domestic arrangements.

**Healthy eating** - The Five Year Forward View (NHS England 2014) identified that 75% of hospitals do not offer healthy food to staff working night shifts and called on organisations to address this issue.

Employers can support the health and wellbeing of shift workers by ensuring the provision of healthy food options in vending machines and access to facilities to cold store and reheat food brought in from home.

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

### **Power naps**

*There is a growing body of evidence to promote the benefits of power naps during a long shift, particularly a night shift. Such naps have been found to reduce fatigue in shift workers (Royal College of Physicians 2006) and as such can reduce the risk of errors and incidents.*

### **Driving and fatigue - high risk**

*The Royal Society for the Prevention of Accidents (ROSPA) recognises that drivers who work shifts as being 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 accidents when driving home. Whilst 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 first aid drivers to take the person home. Particularly 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. (Royal Society for the Prevention of Accidents, 2011)*



## How to manage the risks - individual level

Listed below are some examples of measures, adapted from Health and Safety Executive guidance, to reduce the individual health impacts and safety issues related to shift work:

### Physical health

A good diet, regular meals and exercise can improve sleep quality and general health and wellbeing.

- Eat healthy meals on a regular basis.
- Cut down or give up smoking.
- Reduce your alcohol intake.
- Spend 30 minutes a day on a physical activity.
- Stay hydrated during a night shift and try to avoid caffeine.
- Keep moving during your shift, walk around during downtime and do some simple stretching exercises.
- Seek advice from your doctor and/or occupational health department if you require regular medication such as insulin for diabetes or suffer from a chronic condition such as epilepsy. Under the Equality Act employers are required to make reasonable adjustments for those with disabilities for example ensuring adequate and adjusting shift cycles.

### Psychological health

Working shifts that differ from the routine of friends and family can leave you feeling isolated and it is important to plan regular time to keep in touch.

- Talk to friends and family about shift work. If they understand the problems you are facing it will be easier for them to be supportive and considerate.

- Make your family and friends aware of your shift schedule so they can be mindful when planning social activities.
- Make the most of your time off and plan mealtimes, weekends and evenings together.
- Invite others who work similar shifts to join you in social activities when others are at work and there are fewer crowds.
- If you are experiencing last minute changes to your shift rota or receiving your rota at late notice raise concerns with your trade union representative.

### Sleeping

Most adults need seven to eight hours sleep a day although this may decrease with age. If you cannot do this, try to rest, as this is still beneficial. Recording sleep patterns and problems using a diary may help to explain fatigue and tiredness. It can also be used to help find the most suitable strategies and conditions for a better quality of sleep.

- Have a short sleep before your first night shift.
- If coming off night shifts, have a short sleep and go to bed earlier that night.
- Once you have identified a suitable sleep schedule try to keep to it.

Sleep loss and fatigue are some of the most significant problems for shift workers. It is important to try and maintain your normal level of sleep and rest. Daytime sleep is usually lighter, shorter and of poorer quality than night time sleep.

### To help make the environment better for sleeping:

- sleep in your bedroom and avoid using it for watching television, eating and working
- use heavy curtains, blackout blinds or eye shades to darken the bedroom
- disconnect the phone or use an answer machine and turn the ringer down
- ask your family not to disturb you and to keep the noise down when you are sleeping
- discuss your work pattern with neighbours and ask them to try and avoid noisy activities during your sleep time
- consider using earplugs, white noise or background music to mask external noises
- adjust the bedroom temperature to a comfortable level, cool conditions improve sleep.

### Techniques to promote sleep

To promote sleeping during shift work, try to follow a similar routine to the one you follow before a normal night's sleep. The following tips may help you relax after work and promote sleep;

- Go for a short walk, relax with a book, listen to music or a relaxation tape/App and/or take a hot bath before going to bed.
- Minimise use of electronic gadgets 60 minutes before going to bed.
- Avoid vigorous exercise before sleep as it is stimulating and raises the body temperature.
- Avoid caffeine before bedtime as they can prevent sleep.
- Have a light meal or snack before sleeping but avoid fatty, spicy and heavy meals.
- Avoid alcohol as it lowers the quality of sleep.
- Write a to do list before you go into the bedroom so you don't lie awake worrying about things you need to do the next day.

### Ways to improve your alertness at work

On some shifts, such as nights and very early mornings you may find it difficult to remain alert and this can affect your performance. It may also increase the risk of errors, injury and accidents.

You may find it helpful to:

- take moderate exercise before starting work which may increase your alertness during the shift
- take regular short breaks during the shift get up and walk around during breaks
- plan to do more stimulating work at the times you feel most drowsy
- keep in contact with co-workers and help each other to stay alert.

### Driving home

Driving to and from work can be risky, particularly after a long shift, a night shift or before an early start.

Here are some tips to drive safely:

- Consider using public transport or taxis rather than driving.
- Exercise briefly before your journey.
- Share driving if possible and drive carefully and defensively.
- Stop if you feel sleepy and take a short nap if it is safe to do so.
- Make occasional use of caffeine or energy drinks.

If you feel too tired to drive then speak to your manager and see if a contingency plan can be put in place, such as giving you access to somewhere to sleep for a few hours or arranging a first aid driver to take you home.

## Stimulants and sedatives

Shift workers often turn to stimulants such as coffee or cigarettes to keep them awake and sedatives such as alcohol or sleeping pills to help them sleep. Avoid such aids as they only have short-term effects on alertness. Persistent use may also increase the risk of dependence.

- Caffeine is a mild stimulant present in coffee, energy drinks as well as in tablet form. It can improve reaction time and feelings of alertness for short periods. Only use caffeine occasionally and don't rely on it to keep you awake. If you do decide to take caffeine or other stimulants, you should consider what might happen when its effects wear off for example when you are operating machinery or driving.
- Avoid the use of alcohol to help you fall asleep. Although alcohol can promote the onset of sleep it is also associated with earlier awakenings, disrupted sleep and poorer sleep quality. Alcohol consumption increases the risk of long-term damage to your physical and mental health, work, social and personal relationships.
- It is important to remember that sleeping pills and other sedatives can lead to dependency and addiction.

## Support from GP or occupational health

If you work regular night shifts you are entitled to a free night worker health assessment, speak to your occupational health service to find out more. If you are experiencing health problems related to shift work for example difficulties sleeping, seek prompt advice from your GP and or occupational health service.

## Reporting concerns

Raise any concerns about risks such as the impact of fatigue and poorly designed shift patterns on patient safety to your manager 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, health care professionals have a responsibility to practice safely and raise concerns under their respective professional codes. You should raise issues such as inability to take scheduled rest breaks, insufficient rest periods between shifts and pressure to carry out excessive overtime can lead to fatigue and subsequent risk of errors and risks to patient safety.

You should also consider the impact of multiple jobs and your working hours on your ability to practice safely.

Adapted from HSE's hints and tips for shift workers

<http://www.hse.gov.uk/humanfactors/topics/shift-workers.htm>

## The importance of partnership working on shift working patterns

Managers should work in partnership with trade union safety representatives and managers to support improvement in staff health, safety and wellbeing. Partnership working can 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 recognise that changing shift patterns without sufficient consultation with staff and their representative may lead to poor wellbeing and stress related illness. This can increase the likelihood of staff becoming disengaged and demoralised, due to a lack of control over their working conditions.

Furthermore, changes to shift patterns may impact on personal safety, for example moving to a twilight shift and the implications for shift workers getting home safely in the early hours. For these reasons it is important that employers work with both trade union stewards and safety representatives when considering 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 1997 Safety Representatives and Safety Committee Regulations, safety representatives have a right to be consulted on matters that affect the health and safety of members they represent. Consultation should be in advance of changes taking 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 understanding the advantages and disadvantages of current shift systems. Working with safety representatives the HSE suggest that employers stimulate discussion by:

- encouraging workers to share their of shift work
- discussing which shifts are most difficult and why
- providing examples of different shift work schedules and invite new ideas.

## 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>

Health and Safety Executive (2017) Human Factors: Fatigue  
<http://www.hse.gov.uk/humanfactors/topics/fatigue.htm>

European Agency for Safety and health at Work 2016  
The ageing workforce: Implications for occupational safety and health  
A research review available at  
<https://osha.europa.eu/en>

Health and Safety Executive 2006 Managing Shift Work  
[www.hse.gov.uk](http://www.hse.gov.uk)

ACAS 2017 Working Hours  
<http://www.acas.org.uk/index.aspx?articleid=1373>

Health and Safety Executive (2017) Management Standards  
<http://www.hse.gov.uk/stress/standards/>

NHS Improvement 2016 Rostering: Good Practice Guide  
<https://improvement.nhs.uk/resources/rostering-good-practice/>

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:  
[www.csp.org.uk/news/2005/07/05/good-posture-key-good-sleep-say-chartered-physiotherapists](http://www.csp.org.uk/news/2005/07/05/good-posture-key-good-sleep-say-chartered-physiotherapists)

ACAS guidance on changing patterns of work [www.acas.org.uk](http://www.acas.org.uk)

Public Health England and Business in the Community Sleep and Recovery Toolkit  
<https://wellbeing.bitc.org.uk/all-resources/toolkits/sleep-and-recovery-toolkit>

