

Local Heat wave Plan

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Target audience:	All staff
Relevant Regulations and Standards	The Climate Change Act 2008 Health and Safety at Work Act 1974
Links to Organisational/Service Objectives, business plans or strategies	Emergency Planning Group/Business continuity plans

Executive Summary

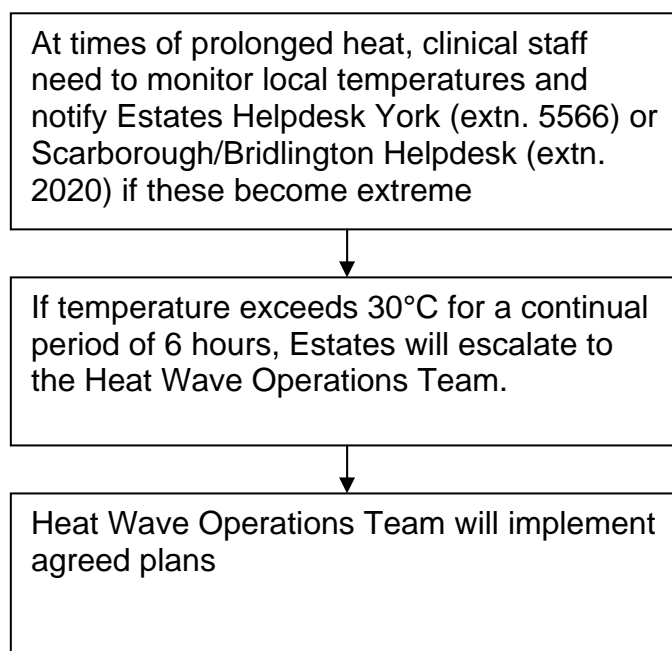
This document describes the implementation and ongoing management of the Trust's local Heat wave plan.

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Process flowchart



1 Introduction & Scope

Heat waves are forecast to increase in frequency in the coming years – this plan provides important guidance on how to reduce the impact they will have upon health and in doing so, will save lives.

There have been many documents published on climate change and legislation has been developed as a result of this. The Heatwave Plan for England was re-issued by the Department of Health on 26 May 2011 and this together with its supporting factsheets and public information leaflet is available on the DH website at:

www.dh.gov.uk/publications.

York Teaching Hospital Foundation Trust has produced a local Heat wave plan to address high internal temperatures even when the National Heat wave plan has not been activated.

Statistics demonstrate that more deaths occur in the first two days of a heat wave and this means that:-

- By the time a heat wave starts, the window of opportunity for effective action is very short indeed; and therefore
- Effective preparedness is of the essence

The plan covers the measures required to provide extra support to patients and members of the community most at risk from a heat wave. Directorates and Departments should incorporate heat wave into their business continuity plans.

This heat wave plan applies to all employees working at York Teaching Hospital NHS Foundation Trust, including locum, flexible contract and agency staff who are working on behalf of the Trust.

2 Definitions

Heat wave - This is based on threshold day and night-time temperatures as defined by the Met Office. These vary from region to region, but the average threshold temperature is 29°C during the day and 15°C overnight for this region (Yorkshire and Humber)

3 Heat wave Alert Levels

The Met Office will issue forecasts regularly. This Heat-Health Watch system operates in England from 1 June to 15 September each year. During this period, the Met Office may forecast heat waves, as defined by forecasts of day and night-time temperatures and their duration.

The above informs the National Heat Wave Plan, which has specific trigger points built in, however our wards/departments may already be experiencing extreme heat this Heat-Health Watch system comprises of four levels:-

Level 1 (Green) – Summer preparedness and Long Term Planning

During June to September, healthcare services need to ensure that awareness and background preparedness are maintained by the measures set out in the Heat wave Plan. Long term planning will include year round joint working to reduce the impact of climate change and to ensure maximum adaptation to reduce the harm from heat waves.

Level 2 (Amber) – Alert and Readiness

This is triggered when the Met Office forecasts that there is a 60% chance of temperatures being high enough on at least 2 consecutive days to have significant effects on health. As death rates rise soon after temperature increases, (most significantly in the first 2 days) this is an important stage to ensure readiness and swift action to reduce harm.

Level 3 (Red) – Heat wave Action

This is triggered as soon as the Met Office confirms that threshold temperatures have been reached in any one region or more. This requires specific actions targeted at high risk groups.

Level 4 – Emergency

This is reached when a heat wave is so severe and/or prolonged that its effects extend outside health and social care, i.e. power or water shortages; and/or where the integrity of health and social care systems is threatened. At this level, illness and death may occur among the fit and healthy and not just the high risk groups and will require a multi-sector response at national and regional levels.

Communication of Alerts to Local Level

During the period of 1st June to 15th Sept these national/regional alert warnings will be communicated to the clinical areas by the Heat Wave Operational Team

Local Heat wave Plan

During hot spells (which are not enough to trigger the Regional Heat wave plan above) , some internal areas within the Trust may experience elevated internal temperatures which is not conducive to aiding recovery.

Although there are no legal upper temperature limits for staff this Local Heat wave Plan is designed to address local patient safety issues.

5 Accountability

Operational implementation, delivery and monitoring of the policy resides with:-

- Heat wave Operational Management Team

Heat wave Operational Management Team

- Receive and communicate heat alert warnings to clinical areas across the locations
- Liaise with Estates staff and instruct them to install temperature monitoring devices

- Implement the Operational Management Team action plan which includes risk assessing the wards that are at greatest risk
- Liaise with the Emergency Planning Lead in the case of Red Alert Level 4 being reached to ensure Major Incident is declared
- Email/Publish on Intranet information leaflets/advice to clinical areas and community teams
- If temperatures are greater than 30°C for a 6 hour continual period escalate to one of the following personnel; (Chief Nurse; Director of Estates & Facilities, or the Director of Operations)

Estates & Facilities Staff

- Liaise with Heat wave Operational Management Team to ensure that any equipment is promptly delivered and installed across all sites (i.e. indoor thermometers; supplies of bottled water etc)
- On receiving confirmation from the Heat wave Operations Team member Estates will order and install temporary air conditioning units which will be funded by the ward or department
- Supply wards with ice when necessary.

Clinical Staff

- Continually monitor the local temperatures in clinical areas and contact Estates help desks if these are over 30 deg C for 6hour period
- Measure temperatures and record on temperature record sheets at least 4 times per day
- Identify patients who are at particular risk from extreme heat
- Ensure that all patients receive adequate hydration
- Ensure all staff maintain their own levels of hydration
- Use only essential lighting and electrical equipment as these generate heat
- Keep windows that are exposed to the sun closed and blinds or curtains drawn during the day and open windows at night when the temperature has dropped
- Wards can request ice supplies from Facilities as circumstances dictate

- If temperatures continue to exceed 30°C, move high risk individuals to a cool area that is 26°C or below
- Notify estates department via helpdesk, when temperatures return to normal and return temporary air conditioning units

Important Information for Clinical Areas

4 Health Risks

Vulnerable Groups:-

- Older people (especially those over 75 years and/or living on their own or in a care home)
- People suffering from mental ill health, those with dementia and those who rely on help from other people to manage their day-to-day activities
- People who are bed bound
- People suffering from chronic ill health
- People who are taking certain types of medication (see below)
- Babies and young children (especially those under 4 years)

People suffering from the following are likely to be at particular risk:-

- Cardiovascular and cerebrovascular conditions
- Obesity
- Malnutrition
- Diabetes
- Parkinson's Disease
- Respiratory Insufficiency
- Renal Insufficiency
- Peripheral vascular conditions
- Alzheimers or related diseases

Medications which provoke or increase the severity of heatstroke:-

The following table is based on advice from the DH Heatwave Plan 2012

Those causing dehydration or electrolyte imbalance	Diuretics, especially loop diuretics Any drug that causes diarrhoea or vomiting (colchicines, antibiotics, codeine)	
Those likely to reduce renal function	NSAIDS, suphonamides, indinavir, cyclosporine	
Those with levels affected by dehydration	Lithium, Digoxin, antiepileptics, biguanides, statins	
Those that interfere with thermoregulation	By central action	Neuroleptics, Seretoninergic agonists
	By interfering with sweating	Anticholinergics <ul style="list-style-type: none"> • Atropine, Hyoscine • Tricyclics • H1 (first generation) antihistamines • Certain Antiparkinsonian drugs • Neuroleptics • Disopyramide • Antimigraine agents
		Vasoconstrictors
		Those reducing cardiac output <ul style="list-style-type: none"> • Beta blockers • Diuretics
By modifying basal metabolic rate	• Thyroxine	
Drugs that exacerbate the effects of heat		
By reducing arterial pressure	All antihypertensives antianginal durgs	

Main Causes of illness:

The main causes of illness and death during a heat wave are respiratory and cardiovascular disease. Additionally, there are specific heat related illnesses including:-

- **Heat cramps** – caused by dehydration and loss of electrolytes, often following exercise
- **Heat rash** – small, red, itchy papules
- **Heat oedema** – mainly in the ankles, due to vasodilation and retention of fluid
- **Heat syncope** – dizziness and fainting, due to dehydration, vasodilation, cardiovascular disease and certain medications
- **Heat exhaustion** – occurs as a result of water or sodium depletion, with non specific features of malaise, vomiting and circulatory collapse and is present when the core temperature is between 37°C and 40°C
- **Heatstroke** – can become a point of no return whereby the body's thermoregulation mechanism fails. This leads to a medical emergency, with symptoms of confusion, disorientation, convulsions, unconsciousness, hot dry skin and a core body temperature exceeding 40°C for between 45 minutes and 8 hours. It can result in cell death, organ failure, brain damage or death. Heatstroke can be either classical or exertional (e.g. in athletes)

Whatever the underlying cause of heat related symptoms, the treatment is always the same – move the person to somewhere cooler and cool them down.

6 Key messages for all staff

Stay out of the heat:

- Keep out of the sun between 11.00 am and 3.00 pm
- If you have to go out in the heat, walk in the shade, apply sunscreen and wear a sunhat and light scarf
- Avoid extreme physical exertion
- Wear light, loose fitting cotton clothing
- Have plenty of cold drinks and avoid excess alcohol, caffeine and hot drinks
- Eat cold foods, particularly salads and fruit with a high water content
- Take a cool shower, bath or body wash
- Sprinkle water over the skin or clothing or keep a damp cloth on the back of your neck

Keep your environment cool (at home):

- Place a thermometer in your main living room and bedroom to keep a check on the temperature
- Metal blinds and dark curtains can absorb heat – consider replacing these or putting up reflective material between them and the window space
- Consider putting up external shading outside windows
- Loft and cavity wall insulation helps to keep the heat in when it is cold and out when it is hot
- Use pale, reflective external paints
- Turn off non-essential lights and electrical equipment – they generate heat.
- Grow trees and leafy plants near windows to act as natural air conditions
- If possible move to a cooler room, especially for sleeping
- Keep indoor plants and bowls of water in the house as evaporation helps cool the air.

Look out for others

- Keep an eye on isolated, elderly, ill or very young people and make sure they are able to keep cool
- Ensure babies, children or elderly people (or animals) are not left alone in stationary cars
- Check on elderly or sick neighbours, family or friends every day during a heatwave
- Be alert and call a doctor or social services if necessary

7 Equality Analysis

In the development of this plan the Trust has considered evidence to ensure understanding of the actual/potential effects of our decisions on people covered by the equality duty. A copy of the analysis is attached at Appendix 1.

8 Consultation, Assurance and Approval Process

8.1 Consultation Process

The Trust will involve stakeholders and service users in the development of its policies.

Consultation has taken place with the following stakeholders:

- Environmental Safety Committee
- Heat wave Operational Team
- Trust Health & Safety Managers

8.2 Quality Assurance/Approval Process

Following consultation with stakeholders and relevant consultative committees, this plan has been through quality assurance checks prior to being reviewed by the authorising committee to ensure it meets equalities legislation. The approving body for this policy is the Health & Safety Group. Its approval will be noted at the HSNCRG.

9 Review and Revision Arrangements

On reviewing this policy, all stakeholders identified in section 6.1 will be consulted. The persons responsible for review are:

- Kingsley Needham & Colin Weatherill, Health and Safety Managers
- Vicki Parkin, Chair of the Environmental Steering Group

10 Dissemination and Implementation

The heat wave plan will be disseminated by the Head of Estates and implemented as annotated in section 5 of the document.

11 Document Control including Archiving

Please refer to the Development and management of policies Policy for details

12 Monitoring Compliance and Effectiveness

The Heat wave Operational Group will liaise with all relevant staff after the implementation of this local heat wave plan and will review and amend in light of any operational issues. The Group will use a strict criteria to assess this in a methodical manner and ensure that the results of this and any lessons learnt are reviewed by the Environmental Safety Committee and then communication across all locations of the Trust

13 Training **No Training required**

14 Trust Associated Documentation

None

15 External References

Local Heat wave Plan
V5.0 Issue date 13 Dec 2013

The government is working at home and abroad to adapt to the effects of climate change and reduce greenhouse gas emissions by investing in low-carbon energy sources, improving fuel standards in cars and increasing energy efficiency wherever possible.

Further information on climate change can be obtained from:
<https://www.gov.uk/government/topics/climate-change>

16 Appendices

Appendix 1: Equality Analysis

Appendix 1 Equality Analysis

To be completed when submitted to the appropriate committee for consideration and approval.

Name of Policy	Heat wave Plan
1.	<p>What are the intended outcomes of this work? Implement a process to monitor and manage high internal temperatures during the summer period.</p>
2	<p>Who will be affected? Patients - the main causes of illness and death during a heat wave are respiratory and cardiovascular diseases. See section 4</p>
3	<p>What evidence have you considered? The National Heat wave plan takes precedence over the local plan. See section 1</p>
a	<p>Disability At 27°C or over, those with impaired sweating mechanisms find it especially difficult to keep their bodies cool.</p>
B	<p>Sex Older women appear to be more vulnerable to the effects of heat than older men, possibly due to having fewer sweat glands and being more likely to live on their own.</p>
c	<p>Race - No issue identified</p>
d	<p>Age . Older women appear to be more vulnerable to the effects of heat than older men, possibly due to having fewer sweat glands and being more likely to live on their own. Babies and Children under 4 years are also vulnerable.</p>
e	<p>Gender Reassignment - No issue identified</p>
f	<p>Sexual Orientation – No issue identified</p>
g	<p>Religion or Belief – No issue identified</p>
h	<p>Pregnancy and Maternity. – No issue identified</p>
i	<p>Carers - No issue identified</p>

j	Other Identified Groups – <i>No issue identified</i>	
4.	Engagement and Involvement	
a.	Was this work subject to consultation?	Yes
b.	How have you engaged stakeholders in constructing the policy	Yes
c.	If so, how have you engaged stakeholders in constructing the policy	Discussion and circulation of document
d.	<p>For each engagement activity, please state who was involved, how they were engaged and key outputs.</p> <p>Plan reviewed by H&S Managers and Infection Prevention. Relevant groups documentation will reflect this. Plan also discussed with Policy Manager and then routed for approval by expert group.</p>	
5.	Consultation Outcome	
a	Eliminate discrimination, harassment and victimisation	N/A
b	Advance Equality of Opportunity	N/A
c	Promote Good Relations Between Groups	N/A
d	What is the overall impact?	None
	Name of the Person who carried out this assessment: A Fairgrieve	
	Date Assessment Completed 21/10/13	
	Name of responsible Director B Golding	

If you have identified a potential discriminatory impact of this procedural document, please refer it to the Equality and Diversity Committee, together with any suggestions as to the action required to avoid/reduce this impact.