

## Procedure Index

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## Briefings

Having read this procedure all key points must be communicated to all relevant staff.

## 1. Introduction

Elderly residents can feel the cold especially if not mobile and at times may request additional sources of heating that they have previously used within their own homes. Priority will be given to satisfying their heating needs using existing fixed radiators, but occasionally additional heating is required. This can include electric blankets, home water bottles, microwave pads and portable heaters etc. This procedure deals with possible risks associated and the subsequent controls required in using this equipment.

## 2. Ideal Room temperatures

Environmental temperature has a direct effect on the incidence of heart attack; stroke, respiratory disease, flu; falls and hypothermia, Temperatures under 18°C may increase blood pressure and risk cardiovascular disease.

Within the care home all rooms have thermostatically controlled radiators connected to the central heating circuit. Ambient temperatures can be monitored and adjusted from the central boiler unit. In most cases this heating is adequate to keep the care home warm.

The primary reference source EFHL has adopted for target temperatures is from the Chartered Institution of Building Services Engineers.

Reference Source	Minimum winter temperatures	Effect
CIBSE – Guide A – Environmental Design (8 <sup>th</sup> Edition)	Bedrooms 17-19°C Living rooms 22-23°C  Corridors 18 – 20°C	If bedrooms used as 'living rooms' adopt relevant temperature.  Thermostat sensors are typically located within corridors






## 3. Dealing with cold room complaints

If complaints are received where residents are feeling cold – these should be investigated in the following structured way.

1. Identify locations where residents are feeling cold (identify if room specific or more general complaint / any specific times).
2. Assess whether resident or location related. Any history of previous comments about rooms / does resident generally feel the cold?
3. Check setting / output of radiator within room – turn TRV up fully.
4. Check windows and ventilator are closed.
5. Measure and record max / min temperature within room by leaving thermometer in room for 24 hours.
6. Review ventilation within room – windows opening, trickle vents in windows open, draughts from corridors etc.
7. Record boiler thermostat settings.
8. Turn up thermostat settings.
9. Check settings on central heating thermostat (Usually located in corridors).

These steps are detailed in Appendix B of this document which can be used to record any investigation.

#### 4. Types of temporary heating

Type		
<b>Electric blanket</b> 	<b>Hot Water bottle</b> 	<b>Wheat bags</b> 
<b>Electric fan / Convection heater</b> 	<b>Oil Portable heater</b> 	

## 5. Electric blankets



An electric blanket is a blanket that contains internal electrical heating wires. They usually have a control unit that adjusts the amount of heat the blanket produces and modern ones also have a safety cut-out. They are safe if kept in good condition.

### Hazards

The main hazards relating to electric blankets are: -

- (i) Fire Risk – The majority of fire incidents relate to blankets over 10 years old. Replace at this age and complete a thorough visual inspection identifying any damage eliminates majority of risk.
- (ii) Burns to residents – Unlikely – check surface temperature of mattress.
- (iii) Electric safety – don't get blanket wet. Don't use with air mattress. Care not to trap cable in profiling mechanism of bed.

Most domestic fires started by electric blankets are caused by old blankets in poor condition. A visual inspection and PAT test can eliminate majority of the risk.

OLD SIGN - DO NOT USE	NEW SIGN
 <p>This old BEAB safety mark – a round symbol means blanket is over 10 years.</p>	

### Conditions of use

- Under 10 years old.
- Good visual condition – no scorch marks
- PAT tested
- Not used with air mattress / hot water bottle
- Resident compatibility

## 6. Hot water bottles

Hot water bottles are filled with boiling / very hot water and can generate localised heat for a number of hours. Where possible 'electric rechargeable' units should be used in preference.



<https://www.healthandcare.co.uk/electric-hot-water-bottles.html>

### Hazards

The main hazards relating to hot water bottles are: -

- (i) Burns from contact with surface – Ceramics type not recommended.
- (ii) Scalding from water – either from staff filling bottle or bottle leaking. Make sure the top is firmly closed before using.
- (iii) Electric safety – Don't use with electric blanket.

#### Conditions of use

- Only use hot water bottles with BS 1970:2012 printed on neck. (The inside faces do not stick together during filling).
- Do not use boiling water – very hot water (eg from water boiler at 85°C is adequate).
- Replace if showing any signs of wear.
- Only fill  $\frac{3}{4}$ .
- Don't use with electric blankets
- Resident compatibility (especially contact with skin / hot surfaces)

### **7. Wheat bags / Microwave heat bags**

Microwave heat bags were introduced as a safer alternative to hot water bottles (eliminating the scalding risk). The primary issue with wheat bags is overheating within the microwave – which is usually caused by not following the heating instructions.

#### Hazards

The main hazards relating to microwave heat bags are:

- (i) Smoke / fire in microwave - Overheating due to not following instructions or leaving bag unattended whilst heating. It is recommended that a glass of water is placed within microwave during heating. As this replenishes the water content in the grain, maintains the effectiveness of the bag as a hot pack and prevents the grain drying out.
- (ii) Infection Control – heating wheat bags should not be completed in a microwave used for heating food or drink unless covered (clean pillowcases have been used).

#### Conditions of use

- Only use wheat bags tested to BS8433.
- Follow heating instructions closely – do not leave unattended whilst heating.
- When heating in microwave ensure fully unfolded and turntable turns.
- Place a glass of water in the microwave with the wheat bag. This replenishes the water content in the grain, maintains the effectiveness of the bag as a hot pack and prevents the grain drying out.

### **8. Electric fan / convection heaters**

Portable electric fan heaters are useful for localised room heating and are available within the homes primarily as backup heating in the event of boiler failure. Generally they are not designed for prolonged use.

#### Hazards

The main hazards relating to electric fan heaters are:

- (i) Fire risk - Fan left on for long periods will overheat and plastic casing can melt. In addition they can fall over burn carpets or be covered accidentally.
- (ii) Burns to residents – If situated less than 1m away from residents can cause burns.
- (iii) Trip hazard – cable can create trip hazard within room.

#### Conditions of use

- Ensure heater has been PAT tested and shows no signs of damage.
- Place on a level surface and leave a minimum of 1m gap from heater to furniture, resident's clothes, curtains.
- Do not use with an extension lead as these can easily overload causing fires.
- Never cover it with anything and be aware of any items that could fall on top.

### **9. Portable oil heaters**

Replacing fan heaters with portable oil heaters significantly reduces the fire risk, and this equipment is more suited for prolonged use.

#### Hazards

The main hazards relating to portable oil heaters are:

- (i) Burn risk – Surface of heater is unguarded and may be hot to touch. Positioning within the room is critical to ensure contact with resident is unlikely.
- (ii) Trip hazard – cable can create trip hazard within room.

#### Conditions of use

- Ensure heater has been PAT tested and shows no signs of damage.
- Place in a location where resident contact is reduced or unlikely.

### **10. Recommended products**

A number of products are now available to purchase which contain in-built safety features such as low surface temperature radiators and safety cut-outs if covered or fall over.

If purchasing new heaters they should incorporate these design features.

#### Low surface temperature (LST) radiators

Surface of the radiator does not exceed 43C.

Example product: Consort Claudgen CN1MLSTFS 1kw LST free standing fan heater

#### Safety feature radiators

Overheat protection – Even if the heater is covered at any point it will automatically shut off if it gets too hot.

Tip over safety – The product will automatically turn off if tipped over.

### 11. Risk assessment

The interaction between resident and any heating equipment should be fully assessed and any deployment within resident's rooms should be recorded via iCare via the Environmental Risk Assessment (Form 5.10) . Any radiator deployment within corridors should also be carefully assessed.

Risk assessment checklists are provided in Appendix A and these should be used as a guidance of controls that should be in place.

Specific focus should be given on any possible burns risks or capability issues relating to residents operating equipment.

### 12. Associated documents

- iCare form 5.10 Environmental risk assessment.

### 13. A Summary of the main points

Check that:


- Heating cannot be achieved via controlling central heating radiators.
- Before deployment risk assessment checklists (Appendix A) are followed.
- Any use is recorded in Residents Care Plan via form 5.10 Environmental Risk Assessment on iCare.

### 13. Document history

Author	Steve Andrews (Health & Safety Manager)
Date of Implementation	10/03/2020
Date of next full review	01/01/2027

Issue	Date	Author	Reason
1.0	10/03/2020	Steve Andrews	New document.
2.0	13/01/2020	Steve Andrews	Full document review – no changes
3.0	01/02/2024	Steve Andrews	Full document review – included reference to Environmental Risk Assessment.
3.0	24/02/2024	Steve Andrews	Banner updated, no other changes, issue number kept same.

**Appendix A: Risk Assessment Checklists**

<b>ELECTRIC BLANKETS</b>			
<b>Activity</b>	<b>Hazard &amp; Hazardous Event</b>	<b>At Risk</b>	<b>Controls</b>
Use of Electric blanket within resident's room.	<p>Fire risk due to faulty equipment.</p> <p>Electric shock from blanket</p> <p>Burns to residents from prolonged contact.</p>	Employees / Residents / visitors	<ul style="list-style-type: none"> <li>Check / estimate age of electrical blanket. If it has this mark - replace (&gt;10 years) </li> <li>Complete PAT test.</li> <li>Complete visual inspection – look for scorch marks, frayed fabric or any damage.</li> <li>Review cables with respect to profiling bed (ensure cables do not get caught in bed).</li> <li>Do not use with air mattress (heat weaken surface of mattress).</li> <li>Resident's susceptibility to heat burns assessed.</li> <li>Heat output of blanket reviewed prior to initial use</li> <li>Only use for prolonged use if thermostatic controls are for safe all-night-use.</li> </ul>
<p><b>Deployment of electric blanket within residents rooms :</b></p> <p>Only deploy to rooms after residents capability has been assessed – record in care plan.</p> <p>Only use equipment with a current PAT testing label.</p> <p>Only use equipment that show no signs of damage.</p> <p>Do not use with air mattress or hot water bottle.</p>			
<p><b>Regular monitoring of electric blankets :</b></p> <p>Check that use of electric blanket not causing resident any discomfort.</p>			

<b>HOT WATER BOTTLES</b>			
<b>Activity</b>	<b>Hazard &amp; Hazardous Event</b>	<b>At Risk</b>	<b>Controls</b>
Care staff filling hot water bottle	Splashing of hot water onto hands whilst filling bottle.	Employees	<ul style="list-style-type: none"> <li>Instruction to fill bottle from wall mounted water heater (tap of heater fits into nozzle of bottle – significantly reducing splash risk).</li> </ul>

Resident using hot water bottle.	Splitting of hot water bottle whilst carrying	Employees	<ul style="list-style-type: none"> <li>• Instruction to only half fill hot water bottle.</li> <li>• Only use hot water bottles with BS 1970:2012 printed on neck.</li> <li>• Using water from heater (dispensed at at 85C).</li> <li>• Ensure water bottles are replaced after 3 years use.</li> </ul>
	Direct contact of hot water bottle with skin.	Residents	<ul style="list-style-type: none"> <li>• Ensure hot water bottles only used with a cover.</li> <li>• Care assessment to determine that resident unlikely to sit on bottle or attempt to open stopper.</li> </ul>
	Electric shock (burst bottle with electric blanket)	Resident	<ul style="list-style-type: none"> <li>• Do not allow electric blanket to be used with hot water bottles.</li> </ul>
<p><b>Filling of hot water bottles</b>            Check the bottle and stopper for wear and tear – replace if damaged.            When filling hot water bottle use wall mounted water heaters (Water temp is approx. 85C).            Place neck of water bottle up to water heater tap and fill to no more than ¾ full.            Expel any excess air and tighten the stopper.            Check stopper is fully secure before carrying.</p>			
<p><b>Continued use of hot water bottle</b>            Bottles must be to British standard (BS 1970:2012) which is printed on the neck of the bottle.            Ensure bottles are covered to prevent burns to skin.</p>			

<b>WHEAT BAGS</b>			
<b>Activity</b>	<b>Hazard &amp; Hazardous Event</b>	<b>At Risk</b>	<b>Controls</b>
Heating wheat bags in Microwave	Smoking / fire in Microwave	Employees	<ul style="list-style-type: none"> <li>• Ensure the wheat bag is BS8433 British Safety Standards compliant.</li> <li>• Follow heating instructions.</li> <li>• Staff to remain in attendance whilst heating.</li> </ul>
Resident using hot wheat bag	Infection Control	Residents	<ul style="list-style-type: none"> <li>• Non food microwave used for heating.</li> </ul>

<p><b>Heating Wheat bags in microwave</b>          Follow the manufacturer's heating instructions, which is usually 2-4 minutes on high in the microwave.          Do not leave unattended when heating.          Fully unfold bag before heating.          Ensure microwave turntable is rotating freely when heating</p>			

<b>ELECTRIC FAN / CONVECTION HEATER</b>			
<b>Activity</b>	<b>Hazard &amp; Hazardous Event</b>	<b>At Risk</b>	<b>Controls</b>
Use of Electric heater within resident's room.	<p>Electrocution due to faulty equipment.</p> <p>Burns to residents from touching heater.</p> <p>Fire due to overloading.</p> <p>Fire due to localised heating of furniture</p> <p>Trailing cables</p>	Employees / Residents / visitors	<ul style="list-style-type: none"> <li>• Use of fan heaters or any other type of space heater is not permitted until PAT tested.</li> <li>• Residents assessed and deployed only after care assessment.</li> <li>• Minimum gap of 1m between heater and resident.</li> <li>• All heaters are to be plugged directly into wall mounted socket so that the RCD is in place should current be exceeded.</li> <li>• Locate heater on flat surface and at least 1m from furniture.</li> <li>• Care staff to check on a frequent (30-45 minutes) basis to ensure that combustible materials are not within 1 metre of the heater and that the heater has not been moved from agreed position</li> <li>• Route of cable not across walking route</li> </ul>
<p><b>Deployment of heaters within residents rooms :</b>          Only deploy to rooms after residents capability has been assessed – record in care plan.          Only use equipment with a current PAT testing label.          Only use equipment that show no signs of damage.</p> <p>Plug directly into wall if possible.          Place on flat surface.          Ensure nothing flammable within 1m of heater.          Check for any objects that could potentially cover heater – eg newspaper or blanket.</p>			

Check positioning of heater with respect to trip hazards, trailing leads

Ensure use of heater has been assessed and recorded within care plan.

**Regular monitoring of heaters :**

Regularly check heater (every 30 – 45 minutes).

Check to ensure no flammables within 1m.

Turn off if not required.

### OIL PORTABLE HEATER

Activity	Hazard & Hazardous Event	At Risk	Controls
Use of Oil filled heater within resident's room.	<p>Electrocution due to faulty equipment.</p> <p>Burns to residents from touching heater.</p> <p>Fire due to overloading.</p> <p>Trailing cables</p>	Employees / Residents / visitors	<ul style="list-style-type: none"> <li>• Use of oil heaters or any other type of space heater is not permitted until PAT tested.</li> <li>• Assess surface temp and control by turning heat output down or placing in location where accidental contact unlikely.</li> <li>• Residents assessed and deployed only after care assessment.</li> <li>• All heaters are to be plugged directly into wall mounted socket so that the RCD is in place should current be exceeded.</li> <li>• Route of cable not across walking route.</li> </ul>

**Deployment of heaters within residents rooms :**

Only deploy to rooms after residents capability has been assessed – record in care plan.

Only use equipment with a current PAT testing label.

Assess maximum surface temperature of heater (turn to max output) and locate in location which reduces likelihood of resident touching – especially falling against.

Plug directly into wall if possible

Place in location where resident contact unlikely.

Check for any objects that could potentially cover heater – eg newspaper or blanket.

Check positioning of heater with respect to trip hazards, trailing leads

Ensure use of heater has been assessed and recorded within care plan.

**Regular monitoring of heaters :**

Regularly check heater (every 2 hours).

Turn off if not required.

**Appendix B: Cold room complaint checklist**

Date	
Resident	
Detail of complaint	
Identify locations where residents are feeling cold. Identify : - if room specific (localised or general) any specific times	
Outside weather conditions Approx. outside temp.	
Any history of previous complaint about room? Does resident generally feel the cold?	
Check setting / output of radiator within room. Turn TRV up fully.	
Measure and record max / min temperature with room by leaving thermometer in room for 24 hours.	
Review ventilation within room – windows opening, trickle vents in windows open, draughts from corridors etc.	
Record boiler thermostat settings.	
Turn up thermostat settings.	
Comments / Conclusion	