



# Medication Room and Refrigerator Temperature Management – Good Practice Guidance for Care Homes

Version 1.1 July 2024

For local adaptation to fit within individual Care Home medication policies

Document produced by: Care Home Medicines Optimisation Team, NHS Bedfordshire, Luton and Milton Keynes Integrated Care Board (BLMK ICB)

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# **Version Control**

Version	Date	Reviewer (s)	Revision Description
Version 1.0	21/4/2022	BLMK Care Home Medicines Optimisation Team	
Version 1.1		BLMK Care Home Medicines Optimisation Team	<ul> <li>Updates include: <ul> <li>Title amended to include 'Good Practice Guidance for Care Homes'</li> <li>Extension of guidance review date from 2 years to 3 years</li> <li>Further guidance from The Royal Pharmaceutical Society on medicines requiring refrigeration storage.</li> <li>Retaining temperature records as per SPS guidance.</li> <li>Additional SPS – Specialist Pharmacy Service reference.</li> <li>Removal of NHSX records management code of practice reference (website no longer available).</li> <li>Additional example of thermometer reading</li> </ul> </li> </ul>

# Committee where guidance was discussed/approved/ratified.

Committee/group	Date	Status
BLMK Primary Care	21/4/2022	Approved Version 1.0
Prescribing committee		
BLMK Primary Care	11/7/2024	Approved Version 1.1
Prescribing committee		

## Responsibilities

All staff responsible for administering medication in care homes must read and understand this guidance on the importance of recording temperatures where medication is stored (room and refrigerator) and reporting any problems/issues.

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#### Introduction

Medicines should be stored in such a way that assures their continuing quality until the end of administration to the patient. The BLMK Care Homes Medicines Optimisation team have produced this room and refrigerator temperature management guide to support care homes to ensure all medication is stored appropriately and at the correct temperature.

Different medicines are assigned storage conditions and shelf lives based on:

- chemical degradation of the active ingredient or any of the other ingredients (excipients)
- physical degradation of the medicine or its container
- whether the medicine or its container may be damaged by freezing
- whether it is necessary to prevent microbial growth

Manufacturers of medicines provide information on storage requirements; this can be found on packaging and/or in patient information leaflets.

#### **Room Temperature/Ambient Storage**

Most medicines are stored at room temperature, also known as "ambient" temperature. This may be expressed on packaging in different ways e.g., "between 15°C and 25°C" or "below 30°C". Sometimes there are no special storage requirements stated. Some medicines should not be refrigerated. If so, this will be stated on the pack. Ideally, all medicines storage areas would be controlled between 15°C and 25°C, which is suitable for all ambient medicines.

General Advice for Ambient Storage:

- Store medicines away from radiators, warm air ventilation inlets and away from any direct sunlight.
- Keep windows and doors closed as much as possible. Windows may be opened to aid cooling but only if it is cooler outside and be cautious of security risks.
- Consider air conditioning in medication rooms, if possible.
- Medication room/storage area temperature should be recorded daily, preferably in the morning. However, we are aware that some care homes may record temperatures twice a day (e.g., during heatwave) which would be considered good practice. This is especially useful when trying to establish when the temperature has fallen out of range.
- For residents who self-administer and keep their medication in their room, daily temperature recording
  of their room may not be necessary. However, if there is likely to be a period of extreme heat (e.g.,
  heatwave or central heating is on maximum setting in room) then the temperature may need to be
  checked and a risk assessment may be required if the temperature is consistently above 25°C.

## **Refrigerator Storage**

Many medicines require refrigeration between 2 and 8°C. Medicines that require refrigeration are often referred to as "cold chain" medicines or "fridge lines".

General Advice for Refrigerator Storage:

- Refrigerator temperature (including the minimum and maximum temperature over the past 24 hours) should be recorded daily, preferably in the morning.
- Do not overload refrigerators. Overloading can lead to poor air circulation.
- Medicines should not be stored in contact with the sides or bottom of the refrigerator.
- Small cartons may be packed into a mesh box or tray but avoid the use of solid trays or insulating material such as polystyrene.
- Refrigerators should be locked when not in use (good practice).
- Refrigerators should be used for the storage of medicines only and should not be used to store any other items.
- Consider steps to ensure that refrigerators are not accidently switched off consider adding a note on the fridge plug stating, 'Do not unplug'.
- Refrigerators must be well maintained and cleaned monthly.
- The fridge should be regularly defrosted and dated records kept.

## **Staff Education**

- Staff reading the room and refrigerator temperature must be trained to ensure correct readings are recorded.
- Staff must understand how to reset thermometers where relevant.
- In the event of a temperature reading outside the accepted range, staff must be aware of the actions to be taken to report and address this.

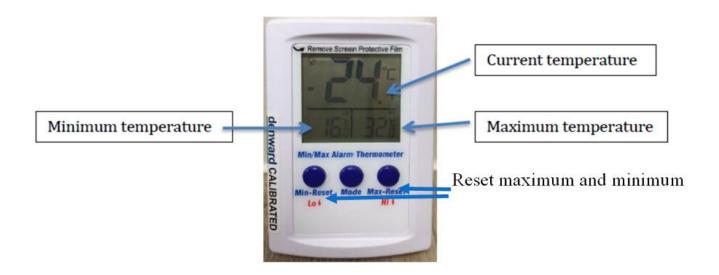
## How to Record Room and Refrigerator Temperatures

- Record the current (actual) temperature reading (for room and refrigerator) every day.
- Press the button for the minimum temperature and maximum temperature and record those in the appropriate column (refrigerator only).
- Reset the thermometer this needs to be reset each time for an accurate reading (for room and refrigerator). **Please note:** this may not be possible for all room temperature thermometers.
- The minimum and maximum temperatures refer to the minimum and maximum temperatures that the refrigerator has been since the last time the thermometer is reset, therefore it is vital that the thermometer is reset each time a new reading is recorded.
- The minimum and maximum refrigerator temperature readings should not be the same every day if the thermometer is reset correctly.
- The temperature records should be kept for a minimum period of one year.
- See Appendix 1 for an example of a blank temperature record sheet.

### **Thermometer Reading**

BLMK ICB appreciates that all care homes use different thermometers, however, below are simple examples of how to read the thermometer correctly and reset.

#### **Example 1 Thermometer Reading**



- 1. Enter the date and time of temperature recording.
- 2. The main large display on the thermometer showing the current temperature needs to be recorded under the "Actual Temperature" column on the log sheet.
- 3. The minimum temperature should be recorded in the "minimum temperature" column in the log sheet.
- 4. The maximum temperature should be recorded in the "maximum temperature" column in the log sheet.
- 5. Reset the temperature reading by pressing the 'min-reset' and 'max-reset' button for 3 seconds until you hear a beep.

### **Example 2 Thermometer Reading**

The display on the front of the refrigerator is designed to constantly show the temperature inside the fridge correct to one decimal place. The fridge will also record the maximum high and minimum low temperatures when connected to mains electricity. This information is stored until the fridge is reset.

Minimum and maximum readings can be accessed if you press the 'Hi/Lo' button and release. The display will show Hi and then the highest temperature recorded since the last reset, then Lo and display the lowest temperature.



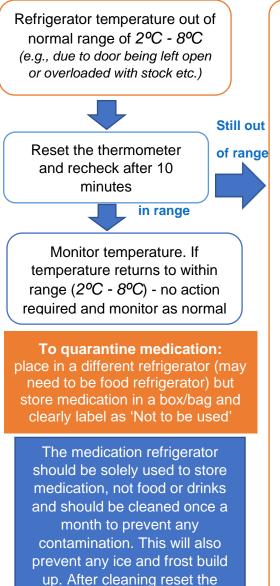
#### Min/Max Temperature Reset

Once you have taken the temperatures for the day it is important that you reset the fridge. This is because the refrigerator will always display the high and low temperature since the last temperature reset. The refrigerator does not automatically reset.

To reset the minimum/maximum temperature press the 'Hi/Lo' button and hold. An alarm will sound, and the current high and low temperatures will be displayed as above. Keeping your finger on the button, the display will then change to flash 'Hi/Lo' then revert to normal operation. This means you have successfully reset the minimum/maximum temperature display and the previous high and low temperatures have been deleted.



#### Flowchart - What to do if the refrigerator temperature falls out of range



thermometer to avoid a false high reading.

- If the temperature falls out of range on the refrigerator thermometer, then put a note/label on the refrigerator saying 'DO NOT USE UNTIL FURTHER NOTICE' with the date, time and signature.
- Label any medication as 'Not to be used' with date, time and signature so that it is quarantined and prevents anyone from using the medication until checked.
- Alert other members of staff and check to see if anyone knows when it became out of range.
- Do not dispose of any medication until you have spoken to a pharmacist as some medicines such as insulin can be kept and used at room temperature for a period of time.

- Contact your supplying pharmacist so they can check the medication and if needed contact the manufacturer to see if the medication is still safe for use.
  - For example, a pharmacist may advise that you can still use the medication with a shortened expiry date, please do not dispose of, or administer any medication until a pharmacist has been in contact with the appropriate action.

When alerting your supplying pharmacy that the temperature is out of range you need to include key information such as: the name of the care home, the last temperature readings (actual, maximum and minimum) including the date and time, the medicines involved including the strength and form (tablet, oral suspension, injection, etc) and how long the refrigerator has been turned off, malfunctioning or not recording correctly.

If the pharmacist informs you that the medication is not suitable for use, then the medication needs to be disposed of in line with your care home policy. New medication will need to be ordered from your GP surgery urgently, informing them of the reason for an earlier request.

#### Medication room/storage – action if temperature out of range

If room temperatures are consistently above 25°C in a medication room, consider the introduction of a cooling unit (e.g., air conditioner). If this is the case in a resident's room, carry out a risk assessment and consider installing a cooling unit or store medicines in a cooler place. If there are any concerns about the medicine's stability being affected, contact your supplying pharmacist for advice. Keep records of any temperature in case required by inspectors. This is to show that the problem has been checked, monitored, and addressed.

#### Appendix 1: Example of temperature record sheet

Date	Time	Room temperature	Actual refrigerator temperature	Minimum refrigerator temperature	Maximum refrigerator temperature	Reset Y/N	Sign	Any discrepancies or actions if out of range

Refrigerator defrosted and cleaned by: ..... Date: ......

## **Reference list and further information**

- NICE guidelines managing medicines in care homes March 2014 [online] <u>Managing medicines in care homes (nice.org.uk)</u>
- The Royal Pharmaceutical society storage of medicines [online] <u>https://www.rpharms.com/recognition/setting-professional-standards/safe-and-secure-handling-of-medicines/professional-guidance-on-the-safe-and-secure-handling-of-medicines</u>
- <u>The temperature requirements for medicines storage. Health Guidance. The Care</u> <u>Inspectorate. Publication date: March 2016</u>
- CQC temperature guidelines <u>The Care Quality Commission (CQC) provides guidance for</u> <u>medicines requiring fridge storage</u>
- SPS Specialist Pharmacy Service <u>Stock handling</u>, waste and recall records in pharmacy <u>SPS Specialist Pharmacy Service The first stop for professional medicines advice</u>
- SPS Specialist Pharmacy Service <u>Understanding why temperature management is</u> <u>important for medicines storage – SPS - Specialist Pharmacy Service – The first stop for</u> <u>professional medicines advice</u>
- <u>Reset Labcold Temperature Recording | HCE (hce-uk.com)</u>