

Kent and Medway ICB

# Medication Storage and Temperature Monitoring

Best Practice Guidance

## Version History

Version	Status	Date	Approved by	Comments
1.0	Approved	March 2022	KMMOC Clinical Cabinet	
2.0	Draft	March 2024		SPS information added on what to do when temperatures are out of range.
2.0	Approved	June 2024	IMOC	

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# NICE Medication Storage requirements

Care home providers should have robust processes in place to effectively store medicines and monitor temperatures of storage facilities, with these facilities having access only by authorised staff.<sup>1</sup> Such storage facilities should be appropriate to meet the needs of the residents and the medicines used by residents. At every point in the cold chain, precautions should be taken to minimise the effect of adverse external conditions on the quality and stability of that product.

In most care homes, there should be a separate, secure fridge that is only used for medicines that require cold storage. In small homes that do not have a constant need to refrigerate medicines, a separate fridge may not be necessary. In this case a sealed and locked container, may be kept in the food fridge to store medicine e.g. an occasional bottle of oral antibiotics or eye drops.<sup>2</sup> A domestic fridge is not suitable for storing high risk products such as vaccines, insulins, or blood products. Please check with the dispensing pharmacy for further advice on specific products.

## Key points for storage

- Medications under the responsibility of the care home must be stored in a designated locked room, medication trolley or cupboard. Access to these areas should be via keys or key code.
- Access to where medication is stored must be restricted to authorised members of staff only.
- Residents who are self-administering their medication should have their medicines stored in a place that is accessible only to the resident and should be available for access by the resident when needed (for example, in a lockable cupboard or drawer in the resident's room).<sup>3</sup> The storage requirements should be documented in the resident's care plan. The medicines **must not** be accessible to other residents. Please refer to CQC guidance for further information on self-administration - <https://www.cqc.org.uk/guidance-providers/adult-social-care/self-administered-medicines-care-homes>
- Medication must be stored following the manufacturer's recommendation.
- Medication must be stored in the original container it was supplied in by the pharmacy.
- Each individual resident's medication should be grouped together within the medication storage area so that it is easily identifiable and the risk of medications being administered to another individual is reduced. For example, using clearly labelled baskets for each resident's medication.
- External medications should be stored separately. This can be in the residents room if an appropriately locked place is available.

## How to check where a medication should be stored

The packaging and/or Patient Information Leaflet (PIL) that is supplied with a medicine will state whether the medicines needs to be kept in a fridge or at room temperature. If you need a copy of the PIL contact your supplying pharmacy or go to [www.medicines.org.uk/emc](http://www.medicines.org.uk/emc)

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## Key points for fridge storage<sup>2</sup>

- The fridge must be locked and accessible only to authorised members of staff.
- The fridge is for the storage of medications only.
- The fridge should be in a well ventilated area, away from any heat sources.
- To prevent the fridge being switched off use a switchless socket or put a clear notice on the plug to say 'Do not unplug or switch off'.
- The fridge must be serviced once a year. Documentation of service and calibration certificates should be kept for future reference.
- The maintenance contract must include temperature gauge calibration and portable appliance testing.
- The fridge must be regularly cleaned and defrosted.
- Temperature must be monitored at least once a day, and recorded including the minimum and maximum temperatures. The thermometer should be reset after each reading.
- Staff should be aware of the usual range of temperatures for the refrigeration and room storage, how to take accurate readings, and the steps to follow should the temperature be out of range.
- Care homes should ensure that if 'When required' (PRN) medications need to be stored in the fridge, they are stored securely and are accessible throughout the day and night, as requests often occur outside of regular medication rounds. Please refer to the [When Required Medications Best Practice Guidance](#) for further information.

## How to monitor fridge temperatures

The fridge temperature should be between +2°C and +8°C.

The temperature of a refrigerator storing medication should be monitored and recorded daily when it is in use (see Appendix 1 for Fridge Temperature Monitoring Sheet). A maximum/minimum thermometer is recommended for this. Follow the manufacturers guide for how to take minimum, maximum, and current temperature readings and how to reset the thermostat. Ensure all staff required to carry out this task are competent to do so.

The medication fridge should be regularly cleaned and defrosted.

## What to do if a fridge temperature is out of range

If the fridge isn't functioning as expected, it is important to identify the fault quickly, otherwise medicines may be wasted. The care provider should have a written procedure of action to take if the temperature is outside +2°C and +8°C (see Appendix 2 for an Out of Range Fridge Temperature monitoring sheet). In the event of an out of range temperature, a care home should consider the following<sup>4</sup>:

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1. Checking and rectifying obvious causes:

- For example, the fridge door was left open, or a power switch was turned off
- Keep the fridge door closed as much as possible and check the temperature sensors are in the right location (and are working properly)
- The fridge should be returned to use only once it has been confirmed to be functioning correctly and the temperature has returned to the 2°C to 8°C range.
- If there is a clear cause that can be easily rectified, action should be taken to do so (for example, defrosting the fridge, turning on power supply).
- If no clear cause can be identified, the fridge should be taken out of use until the cause can be determined and rectified. A sign should be placed on the fridge to state it is not to be used.

2. Quarantine affected medication

- Secure and quarantine the affected stock, stating “DO NOT USE”. This can be attached to the fridge itself if the entire fridge is to be quarantined.
- Fridge medicines exposed to temperatures outside the 2°C to 8°C range should be returned to refrigerated storage. If the fridge cannot return to its correct temperature then the medicines should be moved to an alternative fridge if possible. The secondary fridge should then have its temperature monitored in the same way as the primary fridge.

3. Gather information

- What maximum / minimum temperature was reached
- The total time period the fridge and its contents were outside the recommended range. It should be assumed that the time outside of recommended range started at that point the thermometer was last reset, as it cannot be determined exactly at what point since the thermometer was reset the temperature went out of range.
- Information on all of the medicines affected should be gathered:
  - Medication name (generic and brand name)
  - Strength and formulation
  - Manufacturer
  - Batch number
  - Expiry date
  - Quantity
  - Whether the medication has previously been exposed to out-of-range temperatures

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#### 4. Contact dispensing pharmacy

- The pharmacy should be contacted for advice for how to manage the medicines affected by the out-of-range temperatures, as for some medicines it may be possible to use them (potentially within a short period of time), but some medicines may require disposal.
- Medication should be disposed ONLY upon the advice of the dispensing pharmacist.
- If medication is disposed of, the GP practice (or out of hours service) must be contacted **immediately** to arrange a new supply of medication for the affected residents.

## How to monitor room temperatures

Room temperature should be between +15°C and +25°C.

The temperature of the room(s) where medication is stored should be monitored and recorded daily (see Appendix 3 for Room Temperature Monitoring Sheet).

The following steps should be considered to optimise the room temperature in locations medication is stored<sup>5</sup>:

- Air conditioning should be installed, if possible.
- Store medicines away from radiators and warm air ventilation inlets.
- Direct sunlight may create “hot spots”, especially in the summer - consider moving affected medicines into a shaded location or adding reflective film to the windows.
- Keep windows and doors closed as much as possible. Windows can be opened to aid cooling, but this should only happen if it is cooler outside. **Be cautious of security risks.**
- Consider the use of ambient storage cabinets for small quantities of stock. These look like fridges or incubators, but the chamber is maintained between 15°C and 25°C.

During very high temperatures or heatwaves, stock levels should be kept to a **minimum** and staff should ensure that the stock is strictly rotated (i.e. the medicines that arrive first are used first).

- For high stock turnover areas, this means that the medicines will only be exposed to high temperatures for a brief time before being used
- For low stock turnover areas, this means that the minimum quantity of medicines will be affected by the excursion

## What to do if a room temperature is out of range

The care provider should have a written procedure of action to take if the temperature is outside +15°C and +25°C. In the event of an out of range temperature, a care home should consider the following<sup>4</sup>:

- Check and rectify obvious causes, for example, air conditioning turned off, blinds left open (especially during heatwave)
- Secure and quarantine the affected stock, stating “DO NOT USE”.

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- Medication may require movement to a more suitable storage area if appropriate. The secondary storage area should still meet storage requirements for medication (including security requirements and temperature monitoring)
- Establish what maximum / minimum temperatures were reached and the time period the temperature was out of range for (starting at the time the thermometer was last reset)
- Contact the dispensing pharmacy for further advice, and dispose of medication **ONLY** upon the advice of the dispensing pharmacist.
- Some medicines (e.g. creams, ointments, suppositories) may be best transferred to a fridge if there is no cool place to store them. This should be discussed with the dispensing pharmacy as to whether this would be appropriate.
- If medication is disposed of, the GP practice (or out of hours service) must be contacted **immediately** to arrange a new supply of medication for the affected residents.

## What should be stored separately from regular medication?

**Controlled drugs** – Must be stored in a cupboard made of metal which is secured to a wall by bolts that cannot be accessed from the outside the cupboard and fitted with a robust lock. The cupboard must meet British Standard BS2881:1989 security level 1 requirements and meet the requirements of The Misuse of Drugs (Safe Custody) Regulations 1973.<sup>6</sup> See Controlled Drugs best practice for further guidance.

**Nutritional supplements, thickening agents, dressings and appliances** – must be stored securely and accessible to the appropriate persons within the home. A risk assessment may be carried out as some items may be stored in areas other than the clinical room.

**Homely remedies** – must be stored in a locked medication cupboard separated from named medications. For example, if a separate cupboard is unavailable then they may be stored in basket clearly labelled 'homely remedies'. See Homely Remedies best practice guidance for further information.

**Expired medications and medications no longer required** – must be stored in a tamperproof container within a cupboard until destroyed or collected for destruction.

**Medication belonging to deceased residents** – must be kept for a minimum of 7 days, clearly labelled not in use and separate from in use medications.

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## References

1. National Institute of Health and Care Excellence (2014) Managing medicines in care homes. SC1. Available at: <https://www.nice.org.uk/guidance/sc1>
2. Care Quality Commission (2022) Storing medicines in fridges in care homes. Available at: <https://www.cqc.org.uk/guidance-providers/adult-social-care/storing-medicines-fridges-care-homes>
3. Care Quality Commission (2022) Self administered medicines in care homes. Available at: <https://www.cqc.org.uk/guidance-providers/adult-social-care/self-administered-medicines-care-homes>
4. Specialist Pharmacy Service (2024) Managing temperature excursions. Available at: <https://www.sps.nhs.uk/articles/managing-temperature-excursions/>
5. Specialist Pharmacy Service (2023) Storing medicines at ambient temperatures. Available at: <https://www.sps.nhs.uk/articles/storing-medicines-at-ambient-temperatures/>
6. Care Quality Commission (2023) Controlled drugs in care homes. Available at: <https://www.cqc.org.uk/guidance-providers/adult-social-care/controlled-drugs-care-homes>

## Acknowledgements

NHS Medway Clinical Commissioning Group

NHS East Kent Clinical Commissioning Group

NECS Medicines Optimisation - <https://medicines.necsu.nhs.uk/necs-good-practice-guidance-and-tools-for-care-homes/>

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### Appendix 1: Fridge Temperature Monitoring Form

*Temperatures must be between +2°C and +8°C. If outside this range please take appropriate actions. Please reset the thermometer after each recording.*

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Date	Current Temperature	Min Temp	Max Temp	Thermostat Reset (tick)	Checked By	Any action taken if out of range (2°C - 8°C), if necessary
1						
2						
3						
4						
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29						
30						
31						
<b>Fridge defrosted and cleaned by:</b>				<b>Date fridge defrosted and cleaned:</b>		
<b>Fridge temperature checked every day (Y/N):</b>				<b>Any necessary action taken (Y/N):</b>		
<b>Reviewed by:</b>				<b>Date:</b>		



### Appendix 2: Out of Range Fridge Temperature Monitoring Sheet

<b>Out of Range Fridge Temperature Monitoring Sheet</b>					
Hours since last temperature check:					
Hours out of range (approximately, if known)					
Date	Current Temperature	Min Temp	Max Temp	Thermostat Reset (tick)	Checked by:
<b>Hour 1</b>					
<b>Hour 2</b>					
<b>Hour 3</b>					
Is the temperature still out of range? (Y/N)					
Has the community pharmacy been contacted for advice? (Y/N)					
If advice given, please detail:					
Reviewed by:				Date:	

### Appendix 3: Room Temperature Monitoring Form

*Temperatures must be between +15°C and +15°C. If outside this range please take appropriate actions.*

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Date	Current Temperature	Checked By	Any action taken if out of range (15°C - 25°C), if necessary
1			
2			
3			
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31			
Room temperature checked every day (Y/N):			Any necessary action taken (Y/N):
Reviewed by:			Date: