

Managing Medicine Stocks in a Heatwave

The maximum storage temperature for most licensed (non-fridge) medicines is usually given as 25°C. Medicines will not necessarily deteriorate above this point, but raised temperatures will accelerate degradation. However, a short period above 25°C for most non-fridge medicines is probably not very important when normal overall shelf-lives are around 3 years.

The pragmatic approach to medicines in the current heat wave would include:

1. Fridge medicines:

- Make sure they are not over-loaded & doors are kept closed
- Put fridge medicines away as soon as possible.
- If possible, keep the sides and tops of fridges clear.
- Monitor fridge min/max temperatures daily (2 to 8°C).

2. Drug storage rooms:

- Choose cool rooms without direct sunlight in preference.
- Avoid storing medicines in direct sunlight & make sure window blinds are working and used.
- Turn off lights when not needed.
- Monitor room min/max temperatures daily (below 25°C).

3. Stock rotation:

- Ensure all stock medicines are rotated properly to minimise exposure to high temperatures.
- Don't keep unneeded medicines on wards; send them back to pharmacy quickly.
- Pharmacy to remove unwanted stock as soon as possible.

4. Expiry date adjustment:

Expiry date adjustment for room temperature medicines is only required if temperatures are very high, very prolonged and/or there is no relief during the coolest part of a 24hour day.

The table below gives pragmatic advice for expiry date adjustment.

It is suggested that medicines boxes are updated as below:

Temperature reached	Length of excursion	Action to take
Minimum temperatures continuously above 25°C & maximum below 30°C	Up to 7 days	No action needed
	7 to 28days	Reduce expiry by 1month
Maximum temperatures above 30°C at any day	Up to 7 times in 90 days	Reduce expiry by 1 month
	More than 7 times in 90 days	Reduce expiry by 6 months

5. Check medicines for physical evidence of deterioration: do not use affected items.

- Liquids and injections: do a visual check for precipitation and discolouration.
- Tablets and capsules: check for discolouration and disintegration.
- Creams and ointments: check for splitting or separation of product.

6. Counsel patients to store medicines in a cool room following discharge.

References: 1. *Managing Medicine Stocks in the Heatwave – Memo. Southampton Hospital June 2018.* 2. *Risk Management of Medicines Stored in Clinical Areas: Temperature Control. NHS Pharmaceutical QA committee (1st Edition) June 2015.* 3. *Managing temperature excursions – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice , November 2022*