

Good practice guidance: Medicine expiry dates for use in care homes

This guidance is primarily for care home staff but also mentions good practice tips for prescribers and community pharmacists and technicians.

Introduction

The aim of this document is to provide guidance on the expiry dates of medicines, resulting in reduced medicines wastage, and ensuring residents do not receive expired medicine.

The expiry date of a medicine is the point in time when a pharmaceutical product is no longer within an acceptable condition to be considered effective. The medicine reaches the end of its 'shelf life'.

Depending on the product, the expiry date may be set as a fixed time:

- after manufacture,
- after dispensing,
- after opening of the manufacturer's container.

The shelf life of medicines is determined by either the breakdown of the active drug or by risk of contamination. Not all medicines deteriorate at the same rate. The expiry date for any medicine is calculated by the manufacturer, who has a legal responsibility to include it on the original container.

As part of good medicines management, residents must receive medicine that is 'in date', in order to ensure:

- the active ingredients are fully effective,
- the risk of contamination is reduced,
- the medicine is safe to use.

Medicines may go 'out of date' due to:

- inefficient prescribing or re-ordering systems,
- stockpiling,
- ordering excessive quantities,
- poor stock rotation,
- expiry dates not being checked.

Storage guidelines

- Keep all medicines in the original container in which they were dispensed.
- Keep medicines in their original outer packaging, to protect from sunlight.
- All medicines should be stored in a cool (below 25°C) dry place unless refrigeration is required (between 2°C and 8°C).
- The expiry date of products can change once opened.
- Record the date opened and the calculated expiry on the medicine package/label.
- Be vigilant with product expiry dates.
- Store as recommended by the manufacturer.
- Seek advice from the community pharmacist if medicines are found to have been stored outside their intended conditions or if dispensing labels become illegible.

Effects of using expired stock

- The active drug could become chemically unstable.
- The effectiveness of the medicine may change.
- The break down products of the drug may be toxic and harmful to the resident.
- There is an increased risk of contamination.

Example expiry dates

Wording on packaging	Definition
Best before January 2022	Discard 31/12/2021
Use before end January 2022	Discard 31/01/2022
Use by January 2022	Discard 31/12/2021
Discard after January 2022	Discard 31/01/2022
Expires January 2022	Discard 31/01/2022
Use within one month of opening	Discard 28 days after opening
Discard 7 days after opening	Self-explanatory

Generally, solid dose formulations have a longer expiry date than liquid preparations. The manufacturer's expiry on a container is the unopened expiry date. After opening, the expiry date may be dramatically shortened. This should be highlighted on the medicine label / container and in the resident's medicine profile.

Certain external factors can affect the expiry of a medicine, for example, contact with water, increased or decreased temperature, exposure to air or light e.g. antibiotics to be taken as a liquid formulation are stored in the pharmacy as a dry powder, which is then reconstituted with water and given a shorter expiry date.

Monitored dosage system (MDS)

It is recommended that medicines dispensed in MDS are discarded after 8 weeks if they have not been used. Please note, not all medicines are suitable for inclusion in MDS for example:

- Medicines that may be harmful when handled, e.g. cytotoxic products like methotrexate.
- Medicines that are sensitive to moisture, e.g. effervescent tablets.
- Light-sensitive medicines, e.g. chlorpromazine.
- Medicines that should only be dispensed in glass bottles, e.g. glyceryl trinitrate (GTN) tablets.
- Medicines that should only be taken when required, e.g. painkillers.
- Medicines whose dose may vary depending on test results, e.g. warfarin.

In all cases, the manufacturer's expiry date, contained on the original packaging, should be used if it is earlier than the suggested guideline dates listed in the table below. Some products, i.e. creams and ointments, now show an expiry symbol. However, in the care home setting where storage conditions may be variable, it is recommended that the suggested expiry dates in the table are followed.

Any product whose appearance suggests it may be unfit for use should be discarded irrespective of expiry date. If there is any doubt contact the community pharmacy for advice.

When required (PRN) medicine

Be aware of the expiry date of PRN medicine, especially if they are not used frequently. It is good practice to date and initial upon opening all PRN medicines for audit trail purposes.

Storage of medication following a death

When a resident passes away, their medication should be quarantined separately from other residents medication for 7 days before being disposed of. If there is a coroner's enquiry they must be kept until the enquiry closes. CD medication in both cases must be quarantined in the CD cupboard until they can be destroyed.

Tips for care home staff:

Ordering medicines:

- A nominated member of staff should be responsible for ordering medicine with a named deputy.
- Check the quantities of medicine(s) ordered are appropriate, in order to avoid medicine waste.
- Do not forget to check medicine not routinely stored in the medicines trolley e.g. PRNs, topical preparations.
- Request PRNs in original packs rather than in MDS. (MDS has reduced expiry therefore more frequent prescriptions will be necessary and more medicine waste generated).

Receiving medicines:

- Check if there are any specific expiry date instructions on labels e.g. some liquid antibiotics.
- Check the medicine is still within its expiry date.

Storing medicines:

- Note and act on any specific storage instructions e.g. store in the fridge.
- Rotate stock so the earliest expiry is at the front and therefore used first i.e. 'first in, first out'.
- Check expiry dates of medicine stock monthly.
- Medicine is to remain in the container in which it was received – different batches must not be mixed.
- Use medicine dispensed in amber bottles first as these are subject to a shorter expiry.

Administering medicines:

- Check the expiry date before each administration.
- Record the date opened and the calculated expiry on the medicine package/label where appropriate e.g. creams, eye drops. Some packaging does not allow for the pharmacy label to be placed on the product e.g. eye drops. In these instances, the outer packaging will have to be endorsed with the date of opening. It is essential that the product remains in the outer packaging throughout duration of the treatment
- Highlight any short expiry dates as a reminder to all staff.

Tips for prescribers:

- Prescribe appropriate quantities of medicine in order to avoid waste.
- Quantities requested which appear to be excessive should be queried with the care home.
- Consider nominating a named practice member to process care home prescription requests and to act as contact known to the care home to deal with queries.

Tips for community pharmacies:

Dispensing medicine:

- If decanting from a bulk container, label with the appropriate expiry date.
- Highlight any shortened expiry dates.
- Do not obscure expiry dates with labels.
- If the care home generally receives medicines in MDS, inform staff if a particular medicine is unsuitable for inclusion due to problems with stability. The foil packing around individual tablets must not be cut and placed in a MDS; doing so has potential to cause harm if inadvertently swallowed by a resident.

Suggested expiry dates of medicinal products once opened

Formulation type	Expiry details*	Comments
Tablets and capsules dispensed in original blister strips or container with printed expiry date.	Manufacturer's expiry date as printed on original box or individual foils (check patient information leaflet).	PRN medicine, wherever possible, should be used from the manufacturer's original pack. The expiry date is printed on each strip.
Tablets and capsules dispensed in amber bottles.	6 months from date of dispensing, or as advised by pharmacy.	The date of dispensing is printed on the pharmacy label.
Tablets and capsules dispensed in pharmacy packed blister pack i.e. monitored dosage system (MDS).	8 weeks from date of dispensing.	The date of dispensing is printed on the pharmacy label.
Oral liquids dispensed in original manufacturer's packaging or amber bottles.	6 months from date of opening or follow manufacturer's guidance e.g. for specially manufactured items or expiry date on packaging. For antibiotics, check with community pharmacist if not clear from label.	Write the date of opening on the label.
External liquids such as lotions, shampoos & bath oils dispensed in original containers.	6 months from opening, or manufacturer's recommendation if shorter.	Write the date of opening on the label.
Creams dispensed in tubes or pump dispensers.	3 months from date of opening for tubes or manufacturer's expiry date for pump dispenser.	Write the date of opening on the label.
Creams dispensed in pots, tubs or jars.	3 months from date of opening.	Write the date of opening on the label.
Eye/ear/nose drops/ointments.	Many, but not all, 28 days from date of opening. Check packaging for specific details.	Write the date of opening on the label.

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Formulation type	Expiry details*	Comments
Rectal diazepam	Individual foil wrapped tubes: manufacturer's expiry date.	N/A
	Non-foil wrapped: 6 months from date of opening.	Write the date of opening on the label.
Sip feeds / oral supplementary nutrition	Unopened, follow manufacturer's expiry date.	N/A
Inhalers	Manufacturer's expiry date.	Some newer inhalers have a shortened expiry after dispensing or once opened, these should have a written expiry date by pharmacy.
Glyceryl trinitrate (GTN) sprays	Manufacturer's expiry date.	N/A
Glyceryl trinitrate (GTN) tablets	8 weeks after opening.	Write the date of opening on the label.
Insulin	Unopened: manufacturer's expiry date when stored in a fridge at between 2°C and 8°C.	N/A
	Once opened: 4 weeks for insulin vials and pens unless otherwise stated. When in use can be kept at normal room temperature (i.e. less than 25°C).	Write the date of opening on the label.
Any product whose appearance suggests it may be unfit for use should be discarded, irrespective of expiry date. If there is any doubt contact the community pharmacy for advice.		

**unless otherwise stated by manufacturer and still within manufacturer's expiry date*

Examples of product-specific expiry dates

The following table includes examples with expiry dates specific to that particular product. Please note, this list is not exhaustive.

Product	Expiry
Persantin Retard® (Dipyridamole SR)	6 weeks after opening original dispensing container. Once capsules are packed down into another container then 4 weeks expiry.
Madopar® capsules and tablets	2 weeks when dispensed into another
Nicorandil®	Manufacturer recommendation, then once opened each blister has a 30-day expiry. Use one blister strip at a time before opening the next. The blister strip contains a drying agent to protect the tablets from moisture which should not be removed or swallowed.
Asasantin Retard® capsules	6 weeks after opening original dispensing container. Once capsules are packed down into another container then 4 weeks expiry.
Chlorpromazine syrup 25 mg/5 ml & 100 mg/5 ml (Rosemont)	6 months after opening
Gastrocote® liquid	1 month after opening
Largactil® syrup	1 month after opening
Oramorph® 10 mg/5 ml liquid	90 days after opening
Risperdal® 1 mg/ml liquid	3 months after opening

These guidelines are subject to correct storage at ambient temperatures recommended by manufacturers, and are based on general consensus and not evidence-based, due to the lack of information available.