

## EXPIRY DATES AND STORAGE

### Introduction

There is much confusion about the issue of expiry dates within care homes. This has led to issues with patient safety and the wastage of medication. National guidance is not available for all products and this guidance will improve patient safety; reduce wastage and support sensible medicine use in care homes.

### Definition

The expiry date is the point in time when a pharmaceutical product is no longer within an acceptable condition to be considered effective. The medication 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 products is determined by either the breakdown of the active drug or by risk of contamination. Not all drugs deteriorate at the same rate. The expiry date (use by date) for any medication is calculated by the manufacturer and it is a legal requirement for it to be printed on the original container from the manufacturer. As part of good medicines management, patients should receive medication that is "in date"

- To ensure that the active ingredients are fully effective
- To reduce the risk of contamination
- To ensure that it is safe to use

Medicines may go "out of date" because of:

- Inefficient prescribing or re-ordering systems
- Stockpiling
- Receiving excessive quantities
- Poor stock rotation and not checking expiry dates (ensure the community pharmacist provides a batch number and expiry date on any medicines decanted from bulk containers)

### Storage Guidelines

- Keep all medication 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
- Use disposable gloves per patient when applying creams or ointments
- Medication should be person specific and ‘sharing’ of medicines including creams and ointments is prohibited
- Seek advice from the community pharmacist if medicines are found to have been stored outside their intended conditions or if their dispensing labels become illegible.

**Effects of Using Expired Stock**

- The active drug could become chemically unstable
- The effectiveness of the drug may change
- The break down products of the drug may be toxic and harmful to the patient
- Increased risk of contamination

**Example Expiry Dates**

Wording on Packaging	Definition
Best before January 2012	Discard 31/12/2011
Use before end January 2012	Discard 31/01/2012
Use by January 2012	Discard 31/12/2011
Discard after January 2012	Discard 31/01/2012
Expires January 2012	Discard 31/01/2012
Use within one month of opening	Self-explanatory (ideally every 28 days)
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 or container or in the service user’s medicine profile.

Certain external factors can affect expiry – contact with water, temperature, 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 then given a shorter expiry date.

**Monitored Dosage Systems (MDS)**

It is recommended that medicines dispensed in a 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)
- Medicines that should only be taken when required, e.g. painkillers

- Medicines whose dose may vary depending on test results, e.g. warfarin.

### **When Required Medication (PRNs)**

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

### **Tips for Care Home Staff**

#### **Ordering Medication**

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

#### **Receiving Medication**

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

#### **Storing Medication**

- Note and act on any specific storage instruction 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 medication stock monthly
- Medication is to remain in the container in which it was received – batches must not be mixed
- Ensure to use medication dispensed in amber first as these have previously been open in the pharmacy and are subject to a lesser expiry

#### **Administering Medication**

- Check 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 as a reminder to all staff
- 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

- Use only one unit at a time, e.g. having multiple bottles of an a medication open increases the risk of: using one that has expired, not getting to the end of the cycle with enough stock that is in date.

Formulation Type	Expiry Details (unless otherwise stated by manufacturer)	Comments
Tablets & Capsules :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 (when required) medication, wherever possible, should be used from the manufacturer's original pack. (The expiry date is printed on each strip).
Tablets & Capsules: Dispensed in amber bottles	6 months from date of dispensing	Or as advised by pharmacy
Aspirin Dispersible Tablets: Stored in amber bottles	1 month from date of dispensing	
Tablets & Capsules: Stored in pharmacy packed blisters i.e. MDS	8 weeks from date of dispensing	
Oral liquids: 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.	Estimate the amount of any liquids carried over. Medicines retained for use should be recorded in the 'carried forward' section of the MAR chart.
Oral Liquids: Dispensed in amber bottles	3 months from when the original bulk container was opened	The pharmacy should put an expiry date on the bottle before sending to the Home taking into account when opened in the pharmacy
External liquids: (Lotions, shampoos & bath oils)	6 months from opening	Or manufacturer's recommendation if shorter
Creams: In tubes or pump dispensers	3 months from date of opening or manufacturer's recommendations if shorter	Write the DATE and initial when opened on the dispensing label for audit trail purposes
Ointments: In pots, tubs or jars	3 months from date of opening	Or manufacturer's recommendation if shorter
Sterile Eye/Ear/Nose drops/Ointments	28 days from date of opening	Check pack- some may need storing in the fridge
Rectal Diazepam	Individual Foil Wrapped Tubes	Manufacturer's expiry date
	Non-foil Wrapped	6 months from date of opening
SIP Feeds / Oral Supplementary Nutrition	Unopened, follow Manufacturer's expiry date.	Follow manufacturer's guidance once opened (most keep for 24 hours in fridge)
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 Sprays	Manufacturer's expiry date	
Insulin	Unopened: Manufacturer's expiry date when stored in a fridge at between 2°C and 8°C. Once opened: 4 weeks	One pen/ cartridge will often be sufficient per month. (A box of 5 will rarely be needed every month). Ask

	for insulin vials and pens unless otherwise stated. When in use can be kept at normal room temperature (i.e. less than 25°C).	the G.P to prescribe the nearest number of pens/ cartridges needed per month to reduce stock piling.
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