



Medication Storage and Expiry Dates

Medication Storage and Stability Guideline

Heat, air, light and moisture can affect the stability of medications. Exposure of medications to less than ideal storage conditions may render medications less effective or ineffective. It is important to be aware of the recommended storage conditions for medications and ensure they are stored appropriately. Pharmacy will clearly identify any medications requiring refrigeration.

A medication recommended for storage at **room temperature** should be stored at 15-25 degrees Celsius. A medication **requiring refrigeration** should be stored between 2 and 8 degrees Celsius. However, in addition to eye drops, there are some other medications recommended for refrigeration that are stable for shorter durations at room temperature or shorter durations after the product is opened for initial use. These guidelines are summarized in the tables below.

Eye Drop Expiration Guidelines

Eye drops usually have a limited lifespan once the bottle has been opened. The primary concern after an eye drop bottle has been opened is the sterility of the product. Many manufacturers provide guidelines for the duration of time that an eye drop may continue to be used after the bottle has been opened. These guidelines are summarized in the following table.

Discard eye drops 28 days after opening for most products. Exceptions include:

Generic Name	Brand Name	Storage and Expiry
Brinzolamide/Timolol	Azarga [®]	Discard 60 days after opening.
Chloramphenicol/ Chloramphenicol- HC	Pentamycetin/Pentamycetin HC [®]	Discard 21 days after opening.
Ciprofloxacin	Ciloxan [®]	Discard at end of treatment.
Gentamicin/Gentamicin- Betamethasone	Garamycin/Garasone [®]	Discard at end of treatment.
Latanoprost	Xalatan [®]	Keep refrigerated until opened then store at room temperature. Discard 6 weeks after opening.
Latanoprost/Timolol	Xalacom [®]	Keep refrigerated until opened then store at room temperature. Discard 10 weeks after opening.
Ofloxacin	Ocuflox [®]	Discard at end of treatment.
Tobramycin/Tobramycin- Demaxmethasone	Tobrex/Tobradex [®]	Discard at end of treatment.
Trifluridine	Viroptic [®]	Keep refrigerated throughout use. Discard at end of treatment or after 28 days.

Some eye drops are available in preservative free, single use containers. These products should be discarded after one use. Eye drops used for short term, acute concerns such as infection should always be discarded at the end of treatment.



Multi-Dose Vial Expiration Guidelines

Discard multi-dose vials of injectable products 28 days after first use. Exceptions include:

Generic Name	Brand Name	Storage and Expiry
Dalteparin multidose	Fragmin [®]	Discard 14 days after initial use.
Denosumab	Prolia [®]	Keep refrigerated. Discard after 30 days at room temperature.
Etanercept	Enbrel [®]	Keep unopened vial refrigerated. Discard after 60 days if stored at room temperature. Once reconstituted, refrigerate and discard after 14 days.
Exanatide	Byetta [®]	Keep refrigerated until use, then store at room temperature. Discard 30 days after initial use.
Insulins	All brands except Levemir [®]	Keep refrigerated until use. Discard 28 days after initial use or storage at room temperature.
Insulin detemir	Levemir [®]	Keep refrigerated until use. Discard 42 days after initial use or storage at room temperature.
Liraglutide	Victoza [®]	Keep refrigerated until use, then store at room temperature. Discard 30 days after initial use.
Single use ampoules or vials are not re-used. Multi-dose vials are assigned to a single resident. Vials not marked with both the resident's name and date of opening are to be discarded immediately.		

Ref: Updated Guidance on the use of Multi-dose vials. Public Health Ontario. April 2015.



Inhaler Expiration Guidelines

Most inhaled products are stable until the expiry date indicated on the package. Exceptions include:

Generic Name	Brand Name	Storage and Expiry
Nebules	Pulmicort [®] Nebuamp, salbutamol nebulas	Discard 3 months after removal from outer foil packaging. Discard opened nebulas after 12 hours.
Ellipta [®] inhalation devices	Breo [®] , Anoro [®] , Arnuity [®] , Incruse [®]	Discard 42 days after removal from outer foil packaging (done at point of dispensing).
Respimat [®] inhalation devices	Spiriva [®] , Inspiroto [®] , Combivent [®]	Discard 3 months after loading of cartridge (done at point of dispensing).
Salbutamol Respirator Solution	Ventolin [®]	Discard 30 days after opening. Discard diluted solution in 24 hours if stored at room temperature or 48 hours if refrigerated.
Tiotropium capsules	Spiriva [®]	Capsules exposed to air must be used immediately or discarded. All capsules in strip must be used within 5 days after first capsule is removed from strip.

Medications which have changed colour or consistency should be discarded regardless of expiry date. In particular watch for changes in colour to insulin and any unusual clumping of particles within the suspension, If insulin cannot be resuspended, it is time to discard it.



DID YOU KNOW?

Cotton balls should be removed from a stock bottle when it is opened. The cotton ball can absorb moisture and affect the stability of the remaining medication in the bottle.