

Storage of Parenteral Nutrition Multi-Chamber Bags and Intravenous Fluids for Home Parenteral Nutrition / Fluid Patients in Temperatures Above 25°C

(Information for Healthcare Professionals)

In the current high temperatures, many patients are reporting room temperatures greater than 25°C, with PINNT (a charity supporting patients on artificial nutrition) and homecare companies being contacted by patients and health professionals for advice on how they should store their feeds and fluids.

Product licenses and labels for Multi-Chamber Parenteral Nutrition Bags (MCBs) and most Intravenous Fluids (IVFs) state the maximum storage temperature as 25°C. This is based on the data submitted to regulatory authorities at the time of application for a product license. However, further information is held by manufacturers.

25°C is the set standard room temperature value for medicines in our geographical region.

For many medicinal products, Pharmacists are required to determine reduced shelf lives in the event of storage temperature deviations from the licensed temperature range e.g. inadvertent freezing, refrigeration failure, room temperature above 25°C storage.

Information regarding the stability of medicines outside normal ranges can be found here <https://www.sps.nhs.uk/articles/temperature-and-managing-the-risks-to-medicines/>. As PN is a prescription only medicine, the same principles may be applied.

In the majority of situations, products will be safe to use and not require a reduction in shelf-life. If you have any concerns, please discuss with a specialist Pharmacist.

It should be noted that many patients take MCBs and IVFs abroad to hotter countries for holiday / business without a refrigerator, and have experienced no adverse effects.

Guidance

- All products should be moved to the coolest part of the house where possible
- IVFs can continue to be used as usual
- MCBs should be checked before popping / rolling, paying particular attention to the lipid (white) section of the bag. Look for an oily layer forming on top of the lipid. DO NOT USE if there is anything visible that doesn't completely mix back in when shaken well for at least 10 seconds
- Continue to check the bag occasionally while it is running to make sure it is still mixed
- During infusion of all PN solutions, including compounded bags, ensure they are protected from light and not exposed to extremes of temperature e.g. sunbathing
- Remind patients of the need to monitor themselves for signs of dehydration and administer additional IVFs if needed
- Stock rotation is always important - advise patients to use any bags exposed to higher temperatures before they use any new stock
- Remind patients of the importance of monitoring refrigerator maximum and minimum temperatures - high and low ambient temperatures can affect the functioning of even pharmaceutical-grade fridges
- This guidance can be applied to all medicines supplied using the NHS England Home PN framework. For any other medicines a patient is prescribed, they should contact their prescriber or pharmacist for advice

For further advice on individual products, please contact the product manufacturer's Medical Information Department.

This guidance will be hosted on the website of the British Pharmaceutical Nutrition Group [PN Temperature Excursions | British Pharmaceutical Nutrition Group \(bpng.co.uk\)](https://www.bpng.co.uk). It will be circulated to all homecare companies via the NHS England Commercial Medicines Unit, Intestinal Failure Integrated centres and HPN centres via NHS England HPN email, and patient-specific advice has been developed with PINNT www.pinnt.com.

Trusts may choose to share the link to this guidance via their social media platforms.

The original SBAR to the guidance and further information for healthcare professionals can be accessed on the NHS Futures Platform Home PN section - you will need to register for this if not already registered <https://future.nhs.uk/>.

This document has been compiled by Pharmacists from the NHS England National Home PN Clinical Advice and Management Group, the British Pharmaceutical Nutrition Group, Home PN Stakeholders Group, and with input from Hospital Pharmacy Medicines Information, Regional Pharmacy Quality Assurance and PN manufacturers
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