

Injectable Naloxone Storage Recommendations

How should vials of injectable naloxone be stored?

According to the Product Monograph, injectable naloxone hydrochloride (i.e., vials of injectable naloxone) should be stored between 15°C and 30°C and protected from light.¹ Although this is the recommended temperature, there are situations that may arise where this is not possible and the following questions may apply.

What if my vials of naloxone are exposed to temperature above 30°C or below 15°C?

Studies have shown that repeat exposure to heat (as high as 54°C) and repeat exposures to cold (as low as -6°C) showed a decrease in medication concentration to 89% active ingredient when compared to a properly stored vial of naloxone.^{2, 3}

Community Based Naloxone Program Recommendation

If your Naloxone Kit has been exposed to prolonged temperatures over 30°C or under 15°C, you should replace your kit when able. However, if this is the only naloxone available in the event of a suspected opioid overdose, it may still help to reverse an opioid overdose. Ensure you are calling 911 and providing ventilation (rescue breaths) while you wait for help to arrive.

What if the only naloxone available is expired?

The Product Monograph states that naloxone is stable for 2 years.¹ Studies have been completed looking at how much active medication is available in expired naloxone vials. They have shown that naloxone may be stable up to 5 years past the expiry date.⁴

Community Based Naloxone Program Recommendation

Replace any naloxone that is past the expiry date on the side of the vial. However, if this is the only naloxone available in the event of a suspected opioid overdose, it may still help to reverse an opioid overdose. Ensure you are calling 911 and providing ventilation (rescue breaths) while you wait for help to arrive.

How should I store my naloxone if I am unable to maintain this temperature range?

Community Based Naloxone Program Recommendation

Do not store your Naloxone Kit in an outside location, like in your car, where extreme temperature fluctuations can occur. A Naloxone Kit can be stored in your backpack or bag; however when freezing temperatures occur, it is advised to store the kit inside your coat and close to your body to help maintain the correct temperature and prevent freezing.

If you are needing to replace your Naloxone kit visit www.drugsafe.ca for a complete list of distribution sites. For any other question around naloxone, email naloxone.kit@ahs.ca.

References

1. Omega Laboratories. (2017). *Product Monograph Naloxone Hydrochloride Injection*. Available at: https://pdf.hres.ca/dpd_pm/00039455.PDF
2. Gammon, D., Su, S., Huckfeldt, R., Jordan, J., Patterson, R., Finley, P., and Lowe, C. (2008). *Alteration in prehospital drug concentration after thermal exposure*. Available at <https://doi.org/10.1016/j.ajem.2007.09.004>
3. Armenian, P., Campagne D., Stroh, G., Ives Tallman, C., Zeng, WZD., and Gerona, RR. (2017). *Hot and Cold Drugs: National Park Service Medication Stability at the Extremes of Temperature*. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28059581>
4. Lyon, RC., Taylor, JS., Prasanna, HR. and Hussain, AS. (2006). *Stability profiles of drug products extended beyond labeled expiration dates*. Available at: <https://doi.org/10.1002/jps.20636>