

Inexpensive compounding of low-dose naltrexone (LDN) with orange juice



Roman Bronfenbrener, MD
Philadelphia, Pennsylvania

Key words: compounding; Hailey-Hailey; LDN; lichen planopilaris; liquid; LPP; naltrexone; orange juice; pruritus.

THERAPEUTIC CHALLENGE

Low dose naltrexone (LDN) has been successfully investigated as a treatment for numerous dermatologic diseases, yet the lack of a commercially available preparation of LDN has made access to the medication difficult for patients. A simple method to create LDN using a readily available dose of naltrexone is described below; using this method, patients can begin treatment and dose titration quickly, without relying on compounding pharmacies or insurance authorizations.

SOLUTION

A simple LDN formulation can be compounded by crushing commercially available naltrexone tablets and mixing them with water. This preparation maintains its stability through 90 days when refrigerated, although it can taste bitter or gritty. It also maintains efficacy, as measured by its ability to induce withdrawal in chronically opiate-addicted patients.¹

To help improve its texture and taste, LDN can be compounded by using commercially available tablets and orange juice. I prescribe ten 50-mg tablets of naltrexone (500 mg total) and crush them into approximately 500 mL (16.9 ounces) of juice. This stock 1-mg/mL solution can then be dispensed directly with a dropper or mixed into a larger volume of juice to mask the flavor further. Typical doses are 3 to 5 mL (3-5 mg). To further improve taste, I recommend shaking the mixture before dispensing; other juice flavors can also be used depending on patient preference.

By keeping the aforementioned mixture in the refrigerator, patients can expect to get 3 months' worth of medicine for a cash price of approximately \$15.² This inexpensive mixture is readily available from any local pharmacy, and it should allow for expansion of the use of LDN in our field.

REFERENCES

1. Fawcett JP, Morgan NC, Woods DJ. Formulation and stability of naltrexone oral liquid for rapid withdrawal from methadone. *Ann Pharmacother*. 1997;31(11):1291-1295.
2. GoodRx. Naltrexone; generic revia. https://www.goodrx.com/naltrexone?dosage=50mg&form=tablet&label_override=naltrexone&quantity=10. Accessed March 14, 2019.

Department of Dermatology, University of Pennsylvania.

Funding sources: None.

Conflicts of interest: None disclosed.

Reprints not available from the author.

Correspondence to: Roman Bronfenbrener, MD, Department of Dermatology, University of Pennsylvania, 3400 Civic Center

Blvd, Philadelphia, PA 19067. E-mail: Roman.Bronfenbrener@uphs.upenn.edu.

J Am Acad Dermatol 2021;85:e139.
0190-9622/\$36.00

© 2019 Published by Elsevier on behalf of the American Academy of Dermatology, Inc.

<https://doi.org/10.1016/j.jaad.2019.03.067>