

ToxUpdate

Alabama Poison Information Center, Birmingham, AL

www.childrensal.org/apic

1-800-222-1222

Nurtec™ and Ubrelvy™: Acute Migraine Treatment Alternatives

By Megan Simpson, Samford University PharmD Candidate

Approximately 39 million Americans suffer through debilitating migraine headaches multiple days during the span of a month. These can leave the individual suffering from severe pain, photophobia, hyperacusis, and/or nausea. Unlike typical treatments of acute migraine attacks, Ubrelvy™ (rimegepant) and Nurtec™ (ubrogepant) are both a part of a new class of acute migraine treatment referred to as calcitonin gene-related peptide receptor (CGRP) antagonists. These drugs work to block CGRP binding to its receptor site, thus decreasing pain, inflammation, and vasodilation. Neither drug is approved for migraine prevention.

Nurtec is available in an orally disintegrating tablet (ODT) formulation with a recommended dose of 75 mg in a twenty-four hour period. It is supplied in a blister pack of eight 75 mg tablets and was shown in clinical trials to have a peak concentration of one-and-one-half hours. Adverse effects that were seen during clinical trials included nausea and hypersensitivity reactions. Hypersensitivity reactions to Nurtec have occurred days after administration. Nurtec has an elimination half-life of eleven hours and due to its extensive protein binding would not be a candidate for removal via hemodialysis.

Ubrelvy is available in tablet form with a recommended dose of either 50 or 100 mg once, followed by another 50 or 100 mg dose in two hours or more if no relief has been seen. The recommended maximum dosage is 200 mg in a twenty-four hour period. It is supplied in unit dose packages and dispensed 10 tablets at a time. Adverse effects seen during clinical trials included nausea, somnolence, sedation, and xerostomia. A toxic dose of this drug has not been established.

Since pharmacokinetics do not equal toxicokinetics in patients, it is important that any adult patient who has ingested a dose greater than the recommended maximum daily dose, whether intentionally or unintentionally, and becomes symptomatic should be seen in a healthcare facility. For treatment or referral recommendations after an unintentional pediatric exposure to Nurtec or Ubrelvy

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Special Interest Articles

- Nurtec™ and Ubrelvy™
- Sklice®
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Did you know?

According to Quest Diagnostics, the percentage of American workers testing positive for drugs increased by 4.5% in 2019. This rose steeply to a 16-year high before COVID-19 pandemic threatened to potentially increase illicit drug use even further.

Sklice® Lotion Switches from Prescription to Over-the-Counter

“Ivermectin kills live lice by binding to the glutamate-gated chloride ion channels in invertebrate muscle and nerve cells of the microfilaria.”



By Laura Read RPh, CSPI, Alabama Poison Information Center

In October 2020, the Food and Drug Administration approved a switch from prescription to over-the-counter for the head lice removal product Sklice® (ivermectin) 0.5% lotion. Over-the-counter availability of the product should improve patients' accessibility to treatment of lice.

Ivermectin, a topical pediculicide lotion indicated for topical treatment of head lice infestations in patients ages 6 months and older, is a single-use product with easy-to-follow directions. The directions for use are: apply lotion thoroughly to dry scalp and hair for 10 minutes, then rinse out with water. The American Academy of Pediatrics recommends rinsing topical pediculicides off with warm, rather than hot, water to minimize absorption and unnecessary skin exposure to hot water.

Ivermectin kills live lice by binding to the glutamate-gated chloride ion channels in invertebrate muscle and nerve cells of microfilaria. This leads to paralysis of lice and death. It also causes eggs (or nits) to be unviable once hatched. In addition to binding the chloride ion channels, ivermectin is believed to enhance the neurotransmitter gamma-aminobutyric acid (GABA), thereby disrupting GABA-mediated central nervous system (CNS) neurosynaptic transmission.

Adverse effects are uncommon and include skin and eye irritation, redness, burning, and dryness. In one overdose case report, a 15 kg child ingested an oral ivermectin dose of 100 to 130 mg (6.6 to 8.7 mg/kg) and had vomiting, somnolence, and mild cardiovascular effects. Sklice Lotion, 0.5% is supplied in a 4 oz (117g) tube therefore, a tube would have 585 mg of ivermectin. In severe overdoses of ivermectin, seizures, coma, aspiration pneumonia, metabolic acidosis, respiratory failure, and hypotension may develop. Treatment would be symptomatic and supportive care.

References

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3. Clinical Resource, *Management of Head Lice. Pharmacist's Letter/Prescriber's Letter*. September 2018.

Warning Letters Issued by FDA Concerning CBD Products and Illegal Claims

By Laura Read RPh, CSPI, Alabama Poison Information Center

Cannabidiol (CBD) is the second most prevalent active ingredient in cannabis. The U.S. Food and Drug Administration (FDA) has not approved any cannabidiol (CBD) products other than prescription Epidiolex® for the treatment of seizures associated with tuberous sclerosis complex (TSC), Lennox-Gastaut syndrome (LGS) and Dravet syndrome (DS) in human patients. CBD has not been approved as a food additive or dietary supplement.

In December 2020, the U.S. Food and Drug Administration issued five warning letters to companies for selling products containing cannabidiol (CBD) in ways that violate the Federal Food, Drug, and Cosmetic Act (FD&C Act). All five warning letters involved concern of the unproven claims that CBD can be used to treat medical conditions. Concerning from a public health perspective are the routes of administration, including nasal, ophthalmic, and inhalation. Two of the letters also questioned CBD products illegally marketed for pets, including one product's use in the eye.

As part of its compliance and enforcement activities, the FDA will test products. As reported in the *Journal of Food Composition and Analysis*, some of the general findings indicate fewer than half of the tested products contained CBD at concentrations within 20% of their claimed amount and some products contained the psychoactive cannabinoid tetrahydrocannabinol (THC). The results emphasize a need for further analysis of the cannabidiol marketplace.

References

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2. Dubrow G, Pawar R, Srigley C, et al. A survey of cannabinoids and toxic elements in hemp-derived products from the United States marketplace. *Journal of Food Composition and Analysis*. Volume 97, 2021. <http://www.sciencedirect.com/science/article/pii/S0889157520315052>. (Accessed January 27, 2021).
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4. FDA Warns Companies Illegally Selling CBD Products. Alabama Pharmacy Association. <https://www.aparx.org/news/546397/FDA-Warns-Companies-Illegally-Selling-CBD-Products.htm>. (Accessed January 25, 2021).

Nurtec™ (Rimegepant) and Ubrelvy™ (Ubrogepant) Continued from Page 1

Call the Alabama Poison Information Center (1-800-222-1222). The possibility of fetal harm based on animal data should be considered as part of the evaluation whether watching at home or in a healthcare facility. Due to both medications being metabolized by CYP3A4 and P-gp, any polypharmacy ingestion should be taken seriously. Some drugs that could lead to an increased plasma concentration of Ubrelvy or Nurtec include ketoconazole, clarithromycin, verapamil, ciprofloxacin, and fluconazole.

References

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