Journal of Diabesity | Advancing Metabolic Health | ISSN: 3134-6995

Volume 01 | Issue 01 | 2025 Open Access | Peer-Reviewed Journal

Weight Changes in Patients Using Nurtec ODT: Patient-Reported Outcomes from a Real-World Survey

Authors: Anwar Ahmed Wains[1*], Gulzeryam Muneer[2], Sibghatullah[1], Junaid Shah[1], Bilal Amjad[1], Shahab Ali[1]

Affiliations:

[1]Pakistan Institute of Medical Sciences (PIMS), Islamabad, Pakistan

[2]Rawalpindi Medical University, Rawalpindi, Pakistan

[*]**Corresponding Author:** anwarahmadwains@gmail.com

DOI: https://doi.org/10.66381/jod.2025.004
Received: 13th August, 2025
Accepted: 02nd September, 2025
Published: 13th September, 2025

Abstract:

Background: Nurtec ODT (rimegepant) is a calcitonin gene-related peptide (CGRP) receptor antagonist approved for acute and preventive treatment of migraine in adults. Clinical trials have primarily focused on efficacy and headache-related adverse events; however, anecdotal evidence and patient feedback suggest a potential association between Nurtec ODT and weight changes.

Objectives: To assess real-world, patient-reported experiences of weight change following initiation of Nurtec ODT and to determine whether patients attributed these changes to the medication.

Methods: A cross-sectional online survey was conducted among Nurtec ODT users. Respondents reported weight changes over a three-month period and provided self-assessment regarding the extent of change and whether they attributed the change to Nurtec ODT.

Results: Of the 32 respondents, 29 (91%) reported a change in weight after starting Nurtec ODT. Weight gain of 5–10 lbs was reported by 55%, while 19% reported gaining more than 10 lbs. Weight loss was reported by 12%, and 10% noted no significant change. Among those with weight changes, 86% believed Nurtec ODT was the primary cause.

Conclusion: A considerable proportion of Nurtec ODT users reported moderate weight gain within three months of use, with most attributing the change to the medication. Although weight changes are not listed as adverse events in clinical trial data, these real-world findings underscore the need for pharmacovigilance and further clinical investigation.

Keywords: Nurtec ODT, rimegepant, CGRP antagonist, weight change, patient-reported outcomes, migraine

Introduction:

Migraine is a highly prevalent neurological disorder, affecting approximately 15% of men and women worldwide[1], and is recognized as one of the leading causes of years lived with disability. Its clinical spectrum ranges from mild episodic headaches to frequent, debilitating attacks that often necessitate emergency visits and hospital admissions.

The relationship between migraine and body weight is clinically significant. Obesity is not only a known risk factor for migraine chronification[2] but is also associated with reduced treatment response and increased disability. Furthermore, many traditional preventive medications for migraine—including valproate, tricyclic antidepressants, beta-blockers,and calcium channel blocker[3]—are associated with weight gain. This creates a dual burden for patients: worsening migraine severity and added cardiometabolic risks such as hypertension, stroke, and ischemic heart disease. Thus, the ideal therapeutic strategy is one that alleviates migraine symptoms while minimizing the risk of weight-related complications.

Nurtec ODT (rimegepant), a calcitonin gene-related peptide (CGRP) receptor antagonist, has rapidly gained popularity as both an acute and preventive treatment for migraine[4] due to its oral administration, favorable safety profile, and non-injectable formulation. While pivotal clinical trials demonstrated efficacy with relatively few reported adverse events, emerging real-world data and anecdotal reports suggest possible unrecognized effects, including changes in body weight.

Currently, weight change is not listed among the known adverse reactions in Nurtec ODT's prescribing information[5]. However, patient-reported experiences from online communities and forums increasingly highlight potential weight fluctuations—particularly unexplained weight gain—following initiation of therapy. Such findings warrant systematic exploration, as unrecognized adverse events may impact treatment adherence, patient satisfaction, and long-term cardiovascular health in migraineurs.

The present survey-based study aimed to evaluate real-world, patient-reported outcomes related to weight changes among Nurtec ODT users. By identifying patterns in weight fluctuation and patient attribution of causality, this study seeks to contribute preliminary data that may guide further pharmacovigilance and controlled investigations.

Methods

We conducted a cross-sectional, online survey targeting patients who had used Nurtec ODT for a minimum of three months. The survey included questions about:

- Any perceived weight change since initiating Nurtec ODT,

 DOI: https://doi.org/10.66381/jod.2025.004

- The approximate degree of weight gained or lost,
- Whether the respondent attributed these changes to the medication.

Participation was voluntary and anonymous. A total of 32 patients completed the survey. Descriptive statistics were used to summarize findings.

Results:

Reported Weight Changes:

Out of 32 respondents, 29 (91%) reported noticing a weight change after initiating Nurtec ODT, while 3 (9%) reported no weight change.

Table 1: Weight Change Categories:

Category	*Number of respondents*	*Percentage*
Gained <5 lbs	1	3%
Gained 5–10 lbs	17	55%
Gained >10 lbs	6	19%
Lost <5 lbs	1	3%
Lost 5–10 lbs	1	3%
Lost >10 lbs	2	6%
No noticeable change	3	10%

The majority of respondents (74%) reported weight gain of 5–10 lbs or more after starting Nurtec ODT.

Attribution to Nurtec ODT:

Among respondents who experienced weight change, 25 (86%) attributed the change directly to Nurtec ODT, while 4 (14%) did not.

 DOI: https://doi.org/10.66381/jod.2025.004

Discussion:

Rimegepant (Nurtec ODT) is a second-generation gepant, belonging to a novel class of small-molecule CGRP receptor antagonists approved for the acute and preventive treatment of migraine[6]. The pathophysiological role of CGRP in migraine is well established, with elevated CGRP levels during attacks and migraine-like headaches induced by exogenous CGRP infusion supporting its causal role. Migraine, a disabling neurovascular disorder characterized by recurrent episodes of severe headache, is strongly linked to trigeminovascular activation[7] . Stimulation of perivascular trigeminal nerve branches leads to the release of neuropeptides, particularly CGRP, which acts as a potent vasodilator and activates nociceptive pathways, thereby amplifying pain signaling. Elevated levels of CGRP during migraine attacks and the induction of migraine-like headaches following exogenous CGRP infusion in patients with or without aura further highlight its causal role in migraine generation.[7]

Beyond its neurological mechanisms, migraine is closely linked to metabolic comorbidities, particularly obesity. Obesity not only predisposes to more frequent and severe migraine attacks but also worsens treatment outcomes. Kristoffersen et al. demonstrated higher migraine prevalence and increased attack frequency in obese individuals compared to those with normal weight[8]. Pharmacological therapy often complicates this relationship, as many conventional preventive agents are associated with weight gain (e.g., valproate, amitriptyline, propranolol), whereas others, such as topiramate, may promote weight loss and prove beneficial in obese migraineurs[9].

Data on the metabolic effects of rimegepant remain limited. Findings from this survey suggest a trend toward weight gain in real-world users, with over 86% attributing changes to the drug. The underlying mechanism remains unclear, but several hypotheses exist:

- **CGRP and appetite regulation:** CGRP plays a role in gastrointestinal motility and appetite signaling. Its antagonism may alter satiety cues, potentially increasing caloric intake[6].
- **Indirect behavioral effects:** By reducing migraine burden, rimegepant may improve patients' quality of life and normalize eating patterns. Some patients may inadvertently increase caloric consumption after resuming regular activities.
- **Unrecognized metabolic effects:** Although clinical trials have not reported fluid retention or metabolic changes, subtle alterations in energy balance or adipose regulation cannot be excluded.

Comparison with other CGRP inhibitors may provide additional context. Reports of weight fluctuations have appeared in patient forums for erenumab and fremanezumab, though controlled

 DOI: https://doi.org/10.66381/jod.2025.004

clinical data remain inconclusive. These observations raise the possibility of a class effect that merits formal investigation.

Limitations:

- Small sample size (N = 32) with self-selection bias.
- Reliance on self-reported outcomes, subject to recall and attribution bias.
- Lack of control group and adjustment for confounders such as diet, physical activity, or concomitant medications.
- Short follow-up period (3 months), insufficient to assess long-term weight changes.

Conclusion:

This survey highlights that weight gain may be a real-world concern among Nurtec ODT users, with most respondents reporting moderate weight increases within three months of use and attributing them to the drug. Although causality cannot be established, these findings underscore the need for clinicians to monitor weight trajectories in patients prescribed rimegepant, especially those with obesity or cardiometabolic risk factors.

Future prospective, controlled studies are necessary to clarify the frequency, mechanisms, and clinical implications of weight changes associated with CGRP antagonists. Such research will be critical to optimizing migraine care while mitigating metabolic risks.

References:

1. Steiner, T.J., Stovner, L.J. Global epidemiology of migraine and its implications for public health and health policy. *Nat Rev Neurol* **19**, 109–117 (2023). DOI: 10.1038/s41582-022-00763-1
2. Jahromi, S. R., Martami, F., Morad Soltani, K., & Togha, M. (2023). Migraine and obesity: what is the real direction of their association? *Expert Review of Neurotherapeutics*, *23*(1), 75–84. DOI: 10.1080/14737175.2023.2173575
3. Ghiami, H., Parsapour, M., Khalilzadeh, S. *et al.* Efficacy and safety of calcium channel blockers in migraine management; a systematic review. *Naunyn-Schmiedeberg's Arch Pharmacol* **398**, 16401–16414 (2025). DOI: 10.1007/s00210-025-04422-2
4. Croop R, Lipton RB, Kudrow D, Stock DA, Kamen L, Conway CM, et al. Rimegepant, an oral calcitonin gene–related peptide receptor antagonist, for migraine. N Engl J Med. 2019;381(2):142–9. DOI: 10.1056/NEJMoa1811090
5. Biohaven Pharmaceuticals. Nurtec ODT Prescribing Information [Internet]. New Haven (CT): Biohaven Pharmaceuticals; Available from: https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/212728s000lbl.pdf

6. Edvinsson L. The CGRP pathway in migraine as a viable target for therapies. Headache. 2018;58(Suppl 1):33–47. https://doi.org/10.1111/head.13305
7. LiverTox: Clinical and Research Information on Drug-Induced Liver Injury [Internet]. Bethesda (MD): National Institute of Diabetes and Digestive and Kidney Diseases; 2012-. Rimegepant. [Updated 2025 Jan 12]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK572432/
8. Kristoffersen ES, Børte S, Hagen K, Zwart JA. Migraine, obesity and body fat distribution – a population-based study. Cephalalgia. 2020;40(4):369–78. DOI: 10.1186/s10194-020-01163-w
9. Peterlin BL, Rapoport AM, Kurth T. Migraine and obesity: epidemiology, mechanisms, and implications. Headache: The Journal of Head and Face Pain. 2010 Apr;50(4):631-48. DOI: 10.1111/j.1526-4610.2009.01554.x