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Real-world treatment patterns of prior lines of proton pump inhibitor (PPI) therapy in vonoprazan-treated patients in the United States diagnosed with non-erosive or erosive GERD

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Background

- PPIs are frequently used in the treatment of non-erosive GERD and erosive esophagitis. However, 20-40% of patients may not respond adequately.[1]
- The potassium-competitive acid blocker (PCAB) vonoprazan, is the first-in-class and, currently, the only FDA-approved treatment of its kind for healing and maintenance of healing of erosive GERD (erosive esophagitis) and relief of heartburn in non-erosive and erosive GERD.
- PCABs provide rapid, potent, and durable acid suppression, and may have a role in patients with GERD who have an incomplete response to PPI therapy.[2,3]

Objective

- **Characterize the previous use of prescription PPI treatment patterns in patients with GERD who were subsequently treated with vonoprazan.**

Methods

- Retrospective database analysis of adult patients who initiated vonoprazan in the US.
- We identified patients in IQVIA's Anonymous Patient Longitudinal Database (APLD), a US administrative claims database that receives over 4 billion prescription claims per year.
- Most longitudinal prescription information is collected weekly or monthly from pharmacies and long-term care facilities.
- For inclusion in the descriptive analysis, patients must have had:
  - continuous eligibility criteria of medical and pharmacy benefits over the 12 month pre-index vonoprazan (baseline period)
  - ≥1 GERD diagnosis code (K210, K2100, K2101, K219)
  - continuous eligibility criteria post-index vonoprazan until the most recent data cutoff in February 2025 (follow-up period)
- Patients were classified as having non-erosive or erosive GERD. Any patient with diagnostic codes for both was included in the erosive GERD group.
- We assessed:
  - previous lines of prescription PPI therapy before initiating vonoprazan
  - total number of PPI prescriptions
  - specific PPIs dispensed
  - reasons for discontinuing PPI treatment for the 3-year observation study period (February 21, 2022, to February 21, 2025)
- A gap in PPI therapy of at least 30 days, the end of the one-year baseline period, a restart of previous PPI medication, and/or a switch to a different PPI were considered new lines of therapy.
- Persistency rates for prescription PPI therapy were based on patients who did not switch or have a gap in therapy of less than 30 days between the start of their line of therapy and the end of the observation period.

Results

- We included 10,150 patients with non-erosive and 5916 with erosive GERD who initiated treatment with vonoprazan between February 21, 2022, and February 21, 2025.
- Most patients were treated with one specific or the same PPI before initiating vonoprazan (non-erosive, 66.5%; erosive, 63.8%) (**Figure 1**). Pantoprazole or omeprazole were the most prescribed PPIs (**Figure 2**).

Figure 1. Specific PPI usage prior to vonoprazan

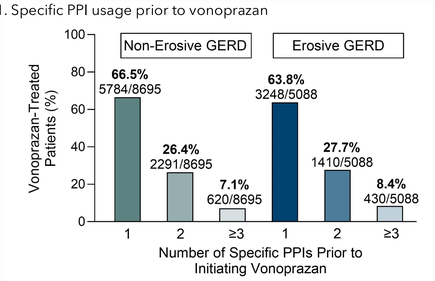
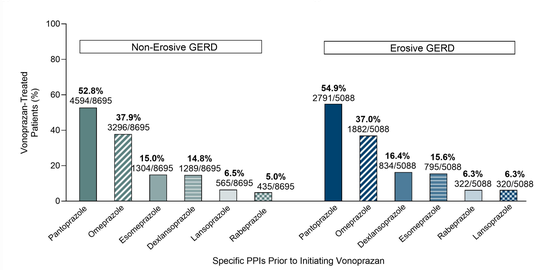
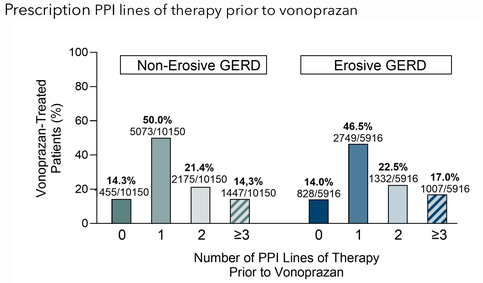


Figure 2. Specific PPIs dispensed before initiating vonoprazan



- Prior to initiating vonoprazan, 35.7% non-erosive and 39.5% erosive patients were cycling their PPIs (>2 or more lines of therapy) by either restarting a new line of therapy with the previous PPI they were treated with or switching to a different PPI (**Figure 3**).

Figure 3. Prescription PPI lines of therapy prior to vonoprazan



- High PPI discontinuation rates during the one-year observation period prior to Voquezna (non-erosive, 54.8%; erosive, 68.4%). Some patients restarted the same PPI (non-erosive, 17.9%; erosive, 22.8%) and only a minority switched to a different PPI (non-erosive, 4.9%; erosive, 7.4%) after discontinuing their previous PPI treatment **Table 1**.

Table 1. Discontinuation and persistence rates before vonoprazan initiation

	Non-Erosive GERD n=10,150	Erosive GERD[a] n=5916
Reason for PPI discontinuation prior to vonoprazan,[b] n (%)	5564 (54.8)	3555 (68.4)
No further PPI treatment	3251 (32.0)	1987 (38.2)
Restart same PPI after discontinuation	1818 (17.9)	1185 (22.8)
Switch to another PPI after discontinuation	495 (4.9)	383 (7.4)
PPI persistence rate prior to vonoprazan,[c] (%)	45.2	31.6

[a] One patient with diagnostic codes for both non-erosive and erosive GERD was included in the erosive group
[b] A gap in PPI therapy of at least 30 days or the end of a patient's one year observation period
[c] Patients who did not switch or have a gap in therapy of less than 30 days between the start of their line of therapy and the end of the observation period

Study limitations

- Inherent to the use of claims data, which may not accurately reflect comprehensive management of a disease, there is the possibility of misclassification bias due to miscoding
- Medication use was measured from pharmacy claims; patients may not have taken the medication as prescribed
- Use of over-the-counter PPIs is not collected in pharmacy claims

Study strengths:

- Large nationwide dataset
- Study inclusion criteria of continuous eligibility enrollment of medical and pharmacy benefits pre- and post-index vonoprazan to minimize data gaps within the study observation period

Conclusions

- **Real-world PPI treatment patterns before initiation of vonoprazan show that most patients diagnosed with GERD had received at least one PPI prescription.**
- **Vonoprazan-treated patients diagnosed with non-erosive or erosive GERD had similar prior PPI treatment patterns.**
- **Over 45% of vonoprazan-treated patients received one prior prescription PPI line of therapy.**
- **Prescription PPI treatment-naïve patients comprised 14.3% and 14.0% of the non-erosive and erosive GERD subgroups.**
- **PPI discontinuation rates before switching to vonoprazan in GERD may indicate an opportunity to improve early intervention among patients at risk of PPI cycling.**

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Disclosures

EDS consulted for Phathom. IA and MG are employees of Phathom Pharmaceuticals. CWH is a consultant for Phathom Pharmaceuticals and Sebela.

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