

Changes in Cardiovascular, Mental Health and Inflammation-Related Medication Use Following Initiation of a GLP-1 Receptor Agonist: A Real-World Irish Pharmacy Study

A Real-World Irish Pharmacy Study

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Background

Obesity is a chronic disease linked to cardiovascular disease (CVD), mental health disorders and chronic low-grade inflammation^{1–2}. GLP-1 receptor agonists improve cardiometabolic risk factors, inflammatory pathways and psychological outcomes^{3–4}.

Objective: evaluate changes in concomitant CVD, mental health and inflammation medicine use after liraglutide initiation.

Methods & Assumptions

Design: Retrospective longitudinal analysis

Index date: First dispensed liraglutide prescription; pre- and post-periods defined relative to this date

Data: IQVIA LRx, cut-off January 2026; ~65% sample of Irish community pharmacies (raw, unprojected)

Population: Patients dispensed liraglutide with ≥6 months continuous treatment and ≥12 months pharmacy history pre- and post-initiation

Follow-up: Up to 18 months pre- and post-initiation

Outcome: Patients collecting ≥1 medicine by therapeutic area (ATC3)

Classification: Medicines grouped at ATC level 3 (therapeutic subgroup)

Limitations of the study: 65% unprojected sample of Irish retail pharmacy; observational dispense-level data; no control for clinical attributes or discontinuation reasons.

Interpretation and Discussion

Liraglutide initiation was associated with a measurable decrease across multiple comorbidity areas, potentially indicating improved health status or reduced clinical burden. The highest discontinuation occurs in CVD risk-management classes (β-blockers, lipid regulators, antiplatelets); nearly all mental-health drop-off is in antidepressants/mood stabilisers, and over half of anti-inflammatory drop-off is in NSAIDs.

Conclusion

In real-world Irish pharmacy data, liraglutide initiation was associated with reduced use of cardiovascular, mental health, and inflammation-related medicines after ≥6 months of treatment, suggesting a potential broader impact of obesity pharmacotherapy beyond weight loss alone. Further prospective studies are warranted to confirm clinical outcomes.

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Results – Cardiovascular (CVD)

- 6.25%** fewer patients on ≥1 CVD medicine
 - **2,802** → **2,627 patients** collecting ≥1 CVD medicine (pre → post)
 - **175 patients** discontinued treatment

Most frequent discontinuations

Beta-blockers (C07A) 20.6%
Antiplatelets (B01C) 18.9%
Heparins (B01B) 17.7%

Results – Mental Health

- 14.29%** fewer patients on ≥1 mental health medicine
 - **1,995** → **1,710 patients** collecting ≥1 mental health medicine (pre → post)
 - **285 patients** discontinued treatment

Most frequent discontinuations

Antidepressants & mood stabilisers (N06A) 99.3%
Psychostimulants (N06B) 0.7%

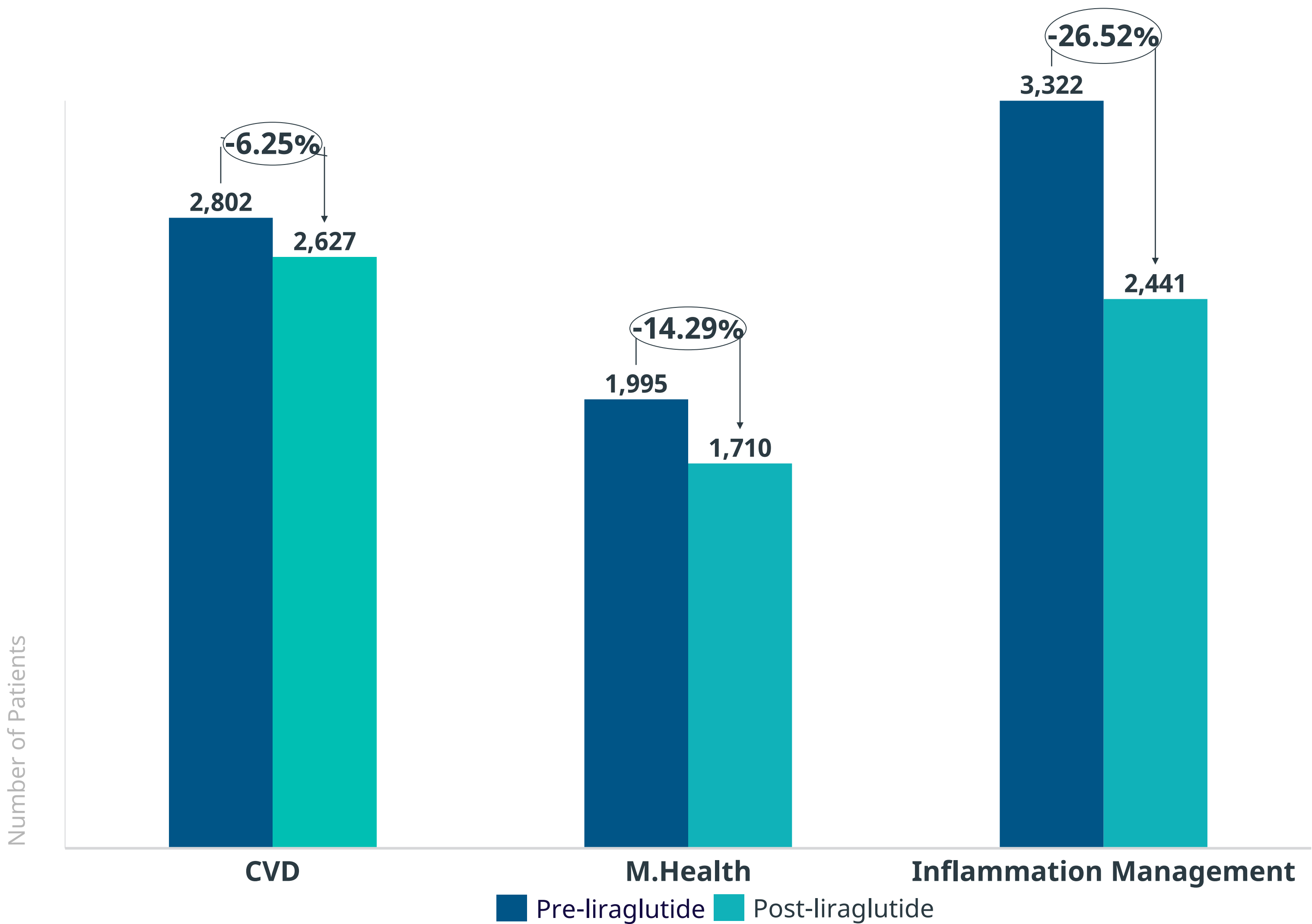
Results – Inflammation Management

- 26.52%** fewer patients on ≥1 inflammation medicine
 - **3,322** → **2,441 patients** collecting ≥1 inflammation-related medicine (pre → post)
 - **881 patients** discontinued therapy

Most frequent discontinuations

NSAIDs (M01A) 57.8%
Non-narcotic analgesics (N02B) 47.9%
Systemic corticosteroids (H02A) 42.8%

Analysis of impact of liraglutide treatment on the use of CVD, Mental Health and Inflammation Management medicines



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