

Use of Big Data to Assess Dyslipidaemia Management in Greece: Real-World Insights From the National Healthcare Payer

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Introduction

- Dyslipidaemia (DSL) is a major modifiable risk factor for cardiovascular disease (CVD), which remains the leading cause of mortality in Greece.
- Recent national epidemiological studies indicate that over 50% of Greek adults are affected by some form of DSL.¹
- Additionally, a 2021 real-world data (RWD) study found that 23.4% of the adult population receives lipid-lowering therapies (LLTs).²
- Despite the widespread availability and use of LLTs, real-world evidence suggests that treatment intensity is often insufficient and LDL-C targets are frequently unmet.³
- Nationwide real-world analyses are crucial for evaluating therapeutic trends, identifying gaps, and informing targeted interventions to enhance cardiovascular prevention and optimise healthcare resource allocation.

Objectives

- This study analyses nationwide real-world treatment patterns for dyslipidaemia in Greece using the most recent 2024 data.
- The analysis will identify weaknesses within the National e-Prescription System and propose actionable recommendations for improvement and governance.
- Furthermore, the analysis aims to identify therapeutic inefficiencies and provide insights for targeted interventions to enhance cardiovascular prevention and optimize healthcare resource allocation.

Figure 1. Distribution of LLTs per ATC-4 class in 2024

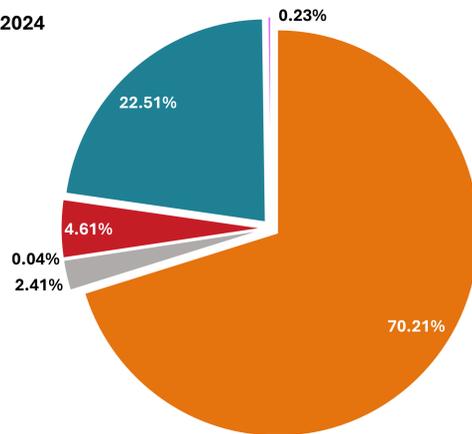
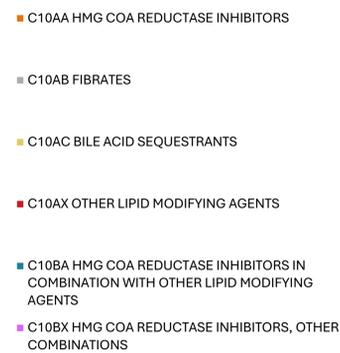


Table 1. Classification of patients by the number of different LLTs (ATC-5 level) received during 2024

Different ATC-5 during 2024	Patients
1	2.203.825
2	282.975
3	35.668
4	3.862
5	439
6	70
7	19
8	2
9	1
Total	2.526.861

Conclusions

- LLT utilisation in Greece has significantly increased to approximately 29% of the Greek adult population in 2024, compared with 14% in the EMENO survey (2013–2016)¹ and 23% in the recent national RWD study (2021)².
- The annual LLT expenditure has already exceeded €260 million and continues to rise, with the main contributor being the increased use of fixed ezetimibe-statin combinations.
- High-intensity statins remain underused, and LDL-C targets are often not achieved, indicating suboptimal implementation of treatment guidelines.
- These findings highlight the need for data-driven policies to improve dyslipidaemia management and optimise healthcare resource allocation, thereby improving the efficiency of primary and secondary cardiovascular prevention strategies.

References

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Methods

- Anonymized claims and prescription data were retrieved from the national e-prescription systems (KMES & e-DAPY), covering over 99% of the population. Adults with a diagnosis of dyslipidaemia (ICD-10: E78) or at least one LLT prescription (ATC: C10) in 2024 were included.
- Utilization was analysed at the ATC-4 and ATC-5 levels, focusing on treatment intensity (high- vs. moderate-intensity statins), monotherapy vs. combination therapy, and associated costs.

Abbreviations: KMES, Health Transactions Information Processing Center; e-DAPY, Electronic System for the Submission of Detailed Health Care Claims

Results

- During 2024, **8,749,162 citizens** received healthcare services covered by EOPYY. We analyzed data from **90.3 million filled prescriptions** and **36.6 million executed referrals** for diagnostic examinations.
- In 2024, **3,073,287 Greek adults were diagnosed with dyslipidaemia** (e-DAPY & KMES) and **2,526,861 received LLTs**, representing approximately 29% of the Greek adult population.
- Statin (C10AA) dominated LLT usage (18.4 million packs), followed by statin-ezetimibe combinations (C10BA) (5.9 million packs), ezetimibe, and fibrates (Figure 1).
- The most frequently prescribed LLT was atorvastatin, while **rosuvastatin** accounted for the **highest expenditure** (Figures 2 and 3).
- Only 19% of patients received high-intensity statins (atorvastatin 40 mg and rosuvastatin 20 and 40 mg), while 25% were treated with statin-ezetimibe combinations.
- The estimated average population-level adherence to LLTs was approximately 73%.
- Additionally, 531 patients were identified as having received 5-9 different LLTs (ATC-5 level) during 2024 (Table 1).
- The total direct expenditure by EOPYY for LLTs reached €264 million, with 43% attributed to fixed ezetimibe-statin combinations (Figure 4).

Figure 2. Ten most frequently prescribed LLTs

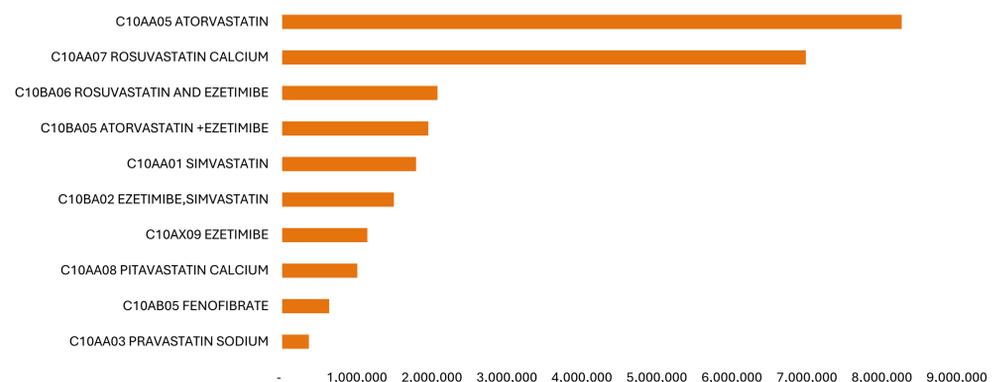


Figure 3. Ten LLTs accounted for the highest expenditure

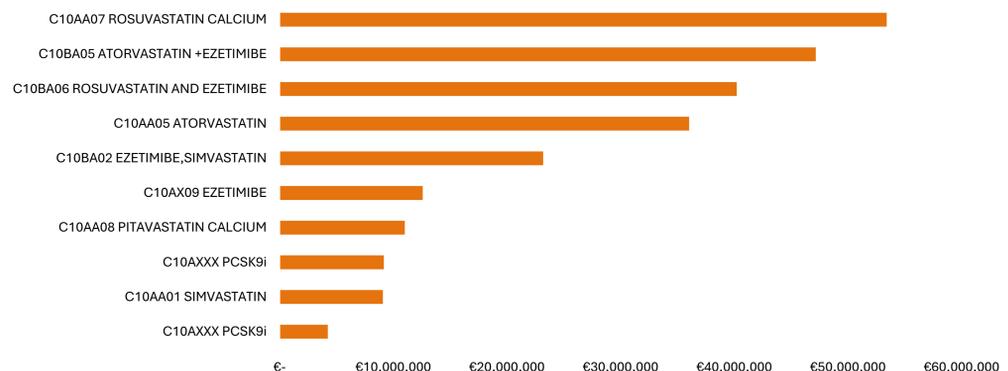
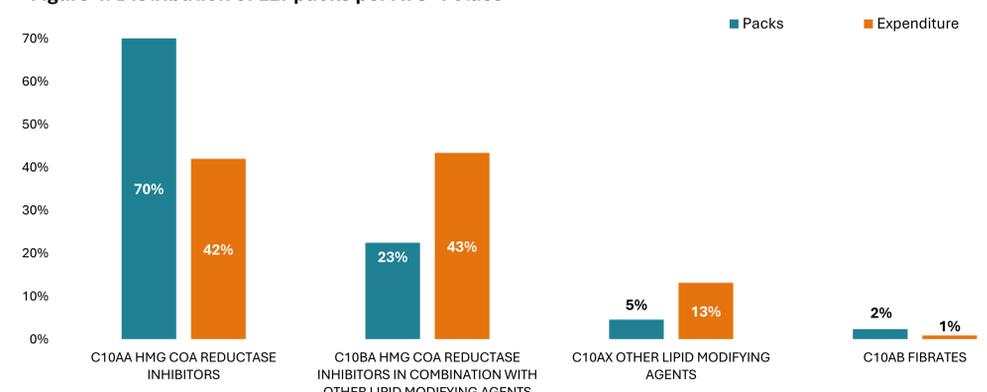


Figure 4. Distribution of LLT packs per ATC-4 class



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