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Poster **CO159**

Lipid-lowering prescription patterns after a non-fatal Acute Coronary Syndrome: the impact of Real-World Evidence on clinical practice with LATINO-ACS 2.0

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KEY FINDINGS & CONCLUSIONS

- Over a 2-year period, prescriptions of higher intensity LLT rose more than threefold and LDL-C target attainment more than doubled at ULS Matosinhos, Portugal.
- These results underscore the impact that real-world evidence can have in driving systemic change and enhancing post-ACS care.

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INTRODUCTION

- The LATINO-ACS study revealed that at the end of 2022, 90% of acute coronary syndrome (ACS) patients at the local health unit of Matosinhos (ULSM), Portugal, did not meet 2019 ESC/EAS guidelines LDL-C targets, highlighting a significant gap in guideline implementation and the need for rapid lipid-lowering therapy (LLT) optimization post-ACS.[1]
- ULSM showed high commitment to changing this status quo and launched several initiatives to improve ACS follow-up.

OBJECTIVES

- **The present study (LATINO-ACS 2.0) aimed to evaluate LLT prescription patterns and LDL-C control after an ACS from 2022 to 2024 and assess progress since previous study despite 1-year overlap.**

METHODS

- Retrospective cohort study using electronic health records from ULS Matosinhos between 2022 and 2024.
- Eligibility criteria:
  - Patients aged 40-80 years;
  - Hospitalized for non-fatal ACS (index date);
  - ≥1 general practice visit in the 3 years prior to index date;
  - ≥105 days of follow-up post-index; and
  - No hospitalization for stroke or peripheral artery disease
- LLT intensity and LDL-C control were analyzed across three time points:
  - T1 (pre-ACS: -365 to -30 days from index date);
  - T2 (near-ACS: -365 to -7 days);
  - T3 (post-ACS: 105 to 395 days).
- LLT classifications (low, moderate, high) were established based on statin intensity and inclusion of ezetimibe.
- LDL-C targets defined for each timepoint were based on 2019 ESC/EAS guidelines[2]:
  - T1, <100 mg/dL; T2, <70 mg/dL; T3 <55 mg/dL.
- Results obtained were compared with the previous analysis (2016-22).

RESULTS

- Among 278 patients, 71.6% were male, median age was 68 (IQR 14) years, 65.1% had type 2 diabetes and 28.8% had heart failure.
- More details of the population depicted in **Table 1**.

Table 1. Characteristics of the population in LATINO-ACS and LATINO-ACS 2.0

	LATINO-ACS, 2016-2022 (n=544)	LATINO-ACS 2.0, 2022-2024 (n=278)
Sex (male) – n (%)	380 (70)	199 (72)
Age – P50 (IQR)	65 (16)	68 (14)
Comorbidities – n (%)		
Type 2 diabetes	-	181 (65)
Heart failure	-	80 (29)
LDL-C across timepoints – P50 (IQR)		
LDL-C at T1	116 (62)	99 (73)
LDL-C at T2	94 (48)	86 (64)
LDL-C at T3	88 (41)	64 (27)
LDL-C control across timepoints – n (%)		
LDL-C control at T1	191 (35)	142 (51)
LDL-C control at T2	108 (20)	85 (31)
LDL-C control at T3	57 (11)	73 (26)

IQR: interquartile range; LDL-C: low-density lipoprotein cholesterol; P50: median; T1: time period pre-ACS: -365 to -30 days from index date; T2: time period near-ACS: -365 to -7 days; T3: time period post-ACS: 105 to 395 days.

LLT prescription patterns

- In the first year before ACS (T1), moderate and high-intensity LLT prescription rose to 43% and 24% in LATINO-ACS 2.0 vs. 27% and 2% in LATINO-ACS (**Figure 1**).
- At T2 and T3, high-intensity LLT use reached 58% and 56% (vs. 13% and 17%), respectively (**Figure 1**).
- Also, there was a higher proportion of patients with high intensity LLT (56% vs. 24%) and high intensity LLT + ezetimibe (24% vs. 5%) in LATINO-ACS 2.0 T3 when compared to T1, respectively (**Figure 1** and **Figure 2**).

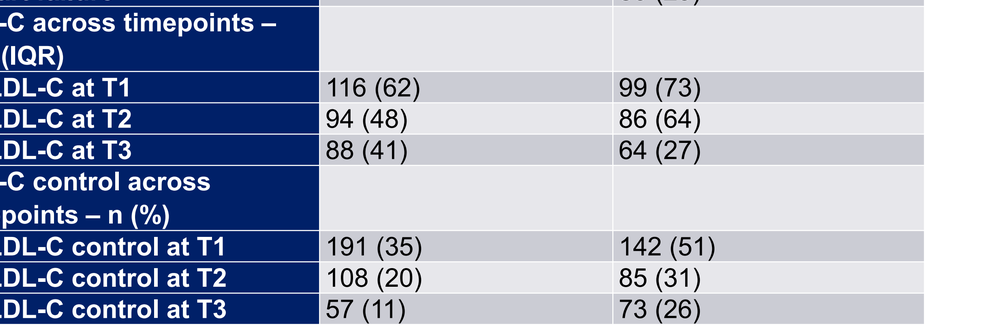

Figure 1. Sankey diagram depicting the percentages (%) of patients prescribed each intensity level of LLT across the three time points in LATINO-ACS and LATINO-ACS 2.0

LLT: lipid lowering therapies; T1: time period pre-ACS: -365 to -30 days from index date; T2: time period near-ACS: -365 to -7 days; T3: time period post-ACS: 105 to 395 days.

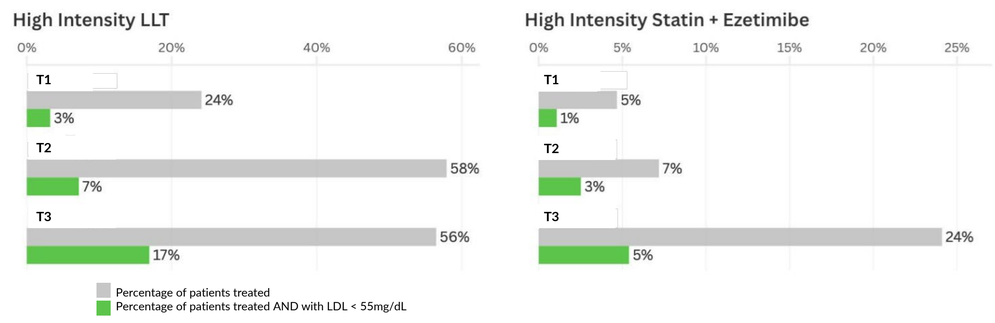

Figure 2. Percentage (%) of patients under high intensity LLT ± ezetimibe and with LDL-C <55 mg/dL across the three time points in LATINO-ACS 2.0

LDL: low-density lipoprotein cholesterol; LLT: lipid lowering therapies; T1: time period pre-ACS: -365 to -30 days from index date; T2: time period near-ACS: -365 to -7 days; T3: time period post-ACS: 105 to 395 days.

LDL-C control

- LDL-C control improved across all time periods in LATINO-ACS 2.0 versus LATINO-ACS, respectively (**Figure 3**):
  - From 2016-2022 to 2022-2024, in the first year after the ACS (T3), the proportion of patients with LDL-C under target more than doubled (from 11% to 26%).

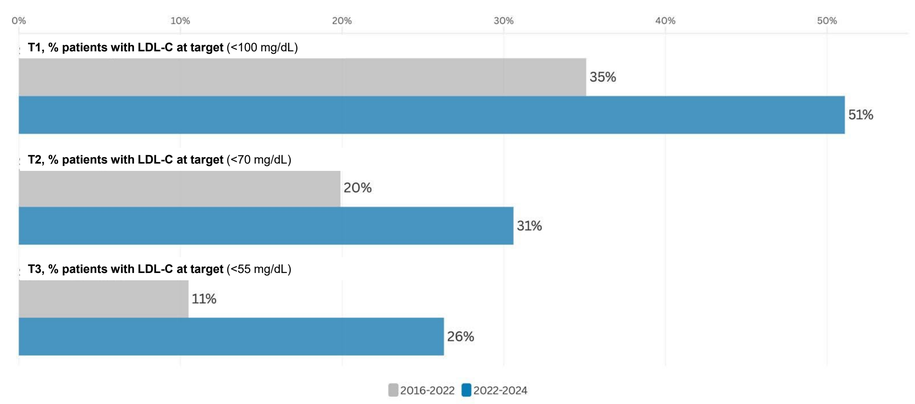

Figure 3. LDL-C at target in each time point in LATINO-ACS (2016-2022) and LATINO-ACS 2.0 (2022-2024)

LDL-C: low-density lipoprotein cholesterol; T1: time period pre-ACS: -365 to -30 days from index date; T2: time period near-ACS: -365 to -7 days; T3: time period post-ACS: 105 to 395 days.

- During the period before the ACS (T1), 49% of patients had LDL-C ≥100 mg/dL and 8% presented LDL-C <55 mg/dL (**Figure 4**).
- Whereas, after the ACS (T3), 14% of patients had an LDL-C ≥100mg/dL, while 26% had LDL-C <55 mg/dL and 35% between 55-70 mg/dL (**Figure 4**).

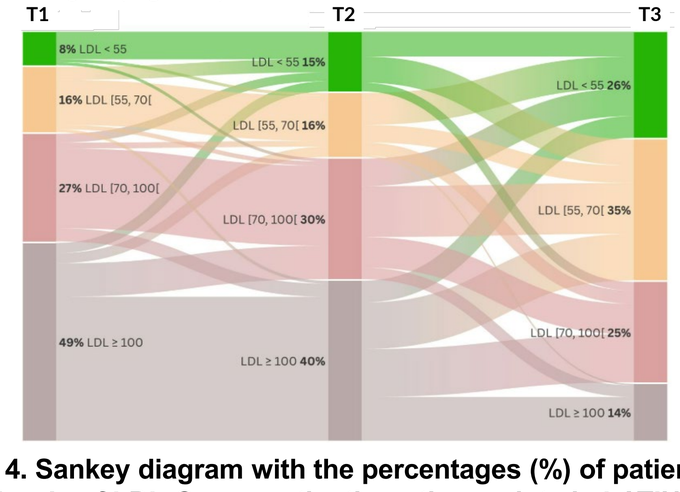

Figure 4. Sankey diagram with the percentages (%) of patients with different levels of LDL-C across the three time points in LATINO-ACS 2.0

References

1. Gavina C, et al. International Journal of Cardiology Cardiovascular Risk and Prevention 25 (2025) 200385

2. Mach F, et al. Eur Heart J. 2020; doi:10.1093/eurheartj/ehz455

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Disclosures

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