**Evolocumab is initiated in Central and Eastern Europe at much higher LDL-C levels than recommended in guidelines: Results from the observational HEYMANS study**

V. Blaha1, R. Margoczy1, I. Petrov1, A. Postadzhiyan2, K. Raslova3, H. Rosolova4, I. Bridges5, NN. Dhalwani6, M. Zachlederova6, KK. Ray7

(1) University Hospital Hradec Kralove and Charles University, Hradec Kralove, Czechia; (2) Middle Slovak Institute of Cardiovascular Diseases, Banska Bystrica, Slovakia; (3) University Hospital Arnstadt-Clay Clinic and Sofia University “S. Kliment Ohridski”, Sofia, Bulgaria; (4) Medical University of Sofia, Sofia, Bulgaria; (5) Slovak Medical University, National Reference Centre for Aortic Reperfusion/Reperfusion, Bratislava, Slovakia; (6) Charles University in Prague, Center of Preventive Cardiology, Pilsen, Czechia; (7) Amgen Ltd, Macclesfield, United Kingdom; (8) Amgen Inc., Thousand Oaks, United States; (9) Amgen Inc., Prague, Czechia; (10) Imperial College London, London, United Kingdom

**KEY RESULTS**

- In the CEE cohort, patients initiated on evolocumab had baseline LDL-C levels >3 times higher than guideline-recommended thresholds for PCSK9 inhibitor initiation. Only half of patients achieved the LDL-C goal of <1.4 mmol/L.
- However, evolocumab use was associated with an LDL-C reduction of >50% within the first 3 months, which was sustained over time.
- Lowering the LDL-C reimbursement threshold for PCSK9 inhibitor initiation would allow more patients to receive combination therapy, thus improving LDL-C goal attainment.

**INTRODUCTION**

- Elevated low-density-lipoprotein cholesterol (LDL-C) is a major risk factor for cardiovascular disease (CVD)1,2.
- PCSK9 inhibitors are recommended if LDL-C goals are not attained despite maximum tolerated dose ± ezetimibe3.
- LDL-C control as per 2019 ESC/EAS dyslipidemia guidelines is a challenge in clinical practice2,4.

**AIM**

- HEYMANS (Hypercholesterolemia of Hyperlipidemia Mic PatienTes) at Initiation of Evolocumab and Treatment Pattern) describes clinical characteristics and LDL-C control among patients initiating the PCSK9 inhibitor evolocumab, across 12 EU countries; study period: 05/2016 to 06/2021.
- Data from Central Eastern Europe (CEE), i.e. Bulgaria (BG), Czechia (CZ), and Slovakia (SK) are reported here.

**METHODS**

- Observational study (NCT02770131) collecting data for ≤6 months before and for ≤12 months (core period) and 13 to ≤30 months (extension phase) after evolocumab initiation.
- Patients ≥18 years newly initiating evolocumab were included; patient informed consent was obtained.
- Primary outcomes: clinical characteristics of patients receiving evolocumab in routine clinical practice.
- Additional outcomes: lipid-lowering therapy (LLT) and lipid profile over time.

**RESULTS**

- **Tab. 1. Patient characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Bulgaria (n=128)</th>
<th>Czechia (n=120)</th>
<th>Slovakia (n=125)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD) duration of FU, mo</td>
<td>23.2 (9.0)</td>
<td>30 (1.6)</td>
<td>28.7 (7.7)</td>
</tr>
<tr>
<td>Male sex, n (%)</td>
<td>48 (52.3)</td>
<td>64 (53.3)</td>
<td>68 (54.4)</td>
</tr>
<tr>
<td>Mean (SD), 20 yrs, yrs</td>
<td>67 (8.63)</td>
<td>60 (5.67)</td>
<td>62 (5.67)</td>
</tr>
<tr>
<td>Statin intolerance, n (%)</td>
<td>50 (38.8)</td>
<td>77 (64.2)</td>
<td>74 (59.2)</td>
</tr>
<tr>
<td>Primary prevention, n (%)</td>
<td>21 (23.9)</td>
<td>31 (25.8)</td>
<td>16 (12.8)</td>
</tr>
<tr>
<td>Secondary prevention, n (%)</td>
<td>47 (57.6)</td>
<td>65 (54.2)</td>
<td>109 (87.2)</td>
</tr>
<tr>
<td>FH, n (%)</td>
<td>76 (63.4)</td>
<td>65 (54.2)</td>
<td>32 (25.6)</td>
</tr>
<tr>
<td>Diabetes mellitus type 2, n (%)</td>
<td>15 (15.7)</td>
<td>16 (13.3)</td>
<td>30 (24.0)</td>
</tr>
<tr>
<td>Hypercholesterolemia, n (%)</td>
<td>70 (79.5)</td>
<td>65 (53.3)</td>
<td>101 (80.8)</td>
</tr>
</tbody>
</table>

**Fig. 1** Persistence with evolocumab at month 12 and 30

**Fig. 2** LDL-C levels in patients at baseline and during evolocumab treatment

**Fig. 3** Achievement of the LDL-C goal of <1.4 mmol/L at least once1,2

**Methods:** All researchers were from Amgen and Amgen subsidiaries if not otherwise stated. All data presented are from clinical studies. The role of the study sponsors was as funders and data contributors. All data presented were gathered independent of the study sponsors. All authors have read the journal’s policy and declare no conflicts of interest.

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