

Reaching LDL-C targets in patients at high CV risk: How well are we doing?

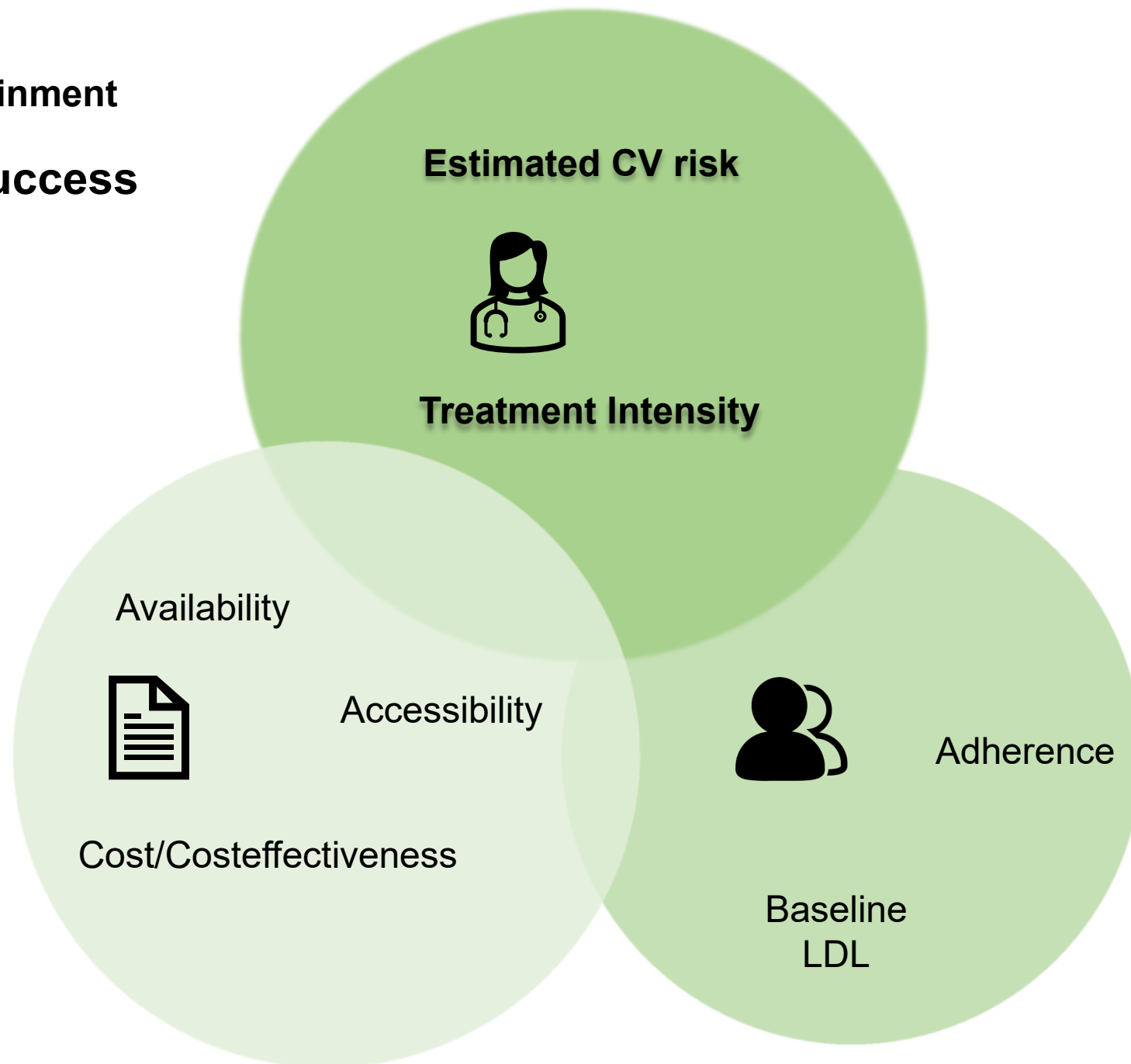
Dr. med. J. Brandts

Department of Internal Medicine I - Cardiology, Angiology, and Internal Intensive Care Medicine
University Hospital Aachen, RWTH Aachen

Imperial Centre for Cardiovascular Disease Prevention (ICCP), Dept. of Primary Care and Public Health,
School of Public Health, Imperial College London, London, United Kingdom

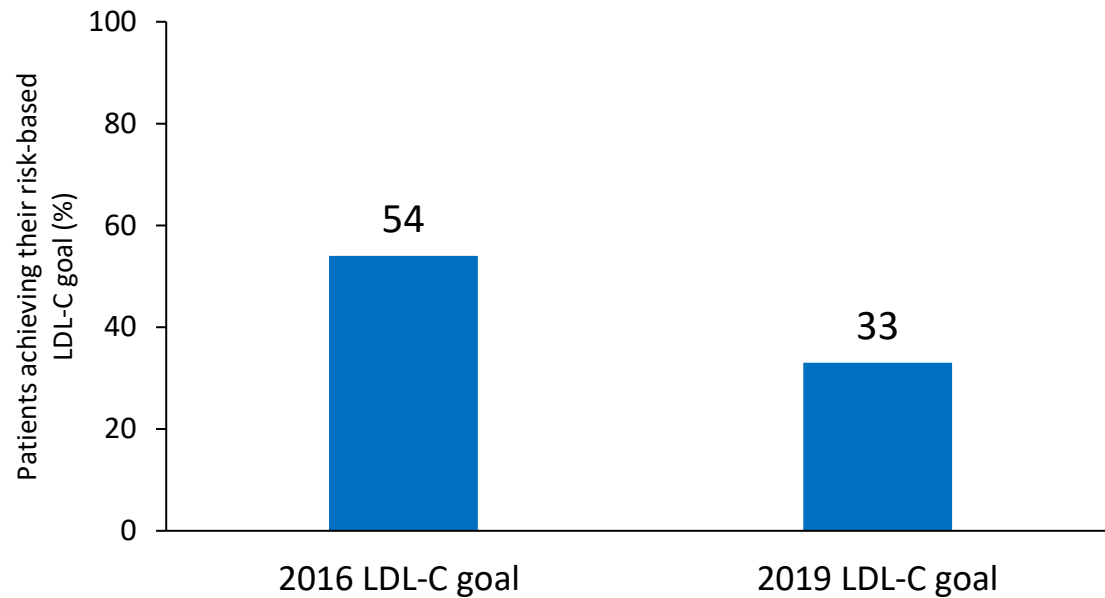
LDL-C goal attainment

Factors of Success

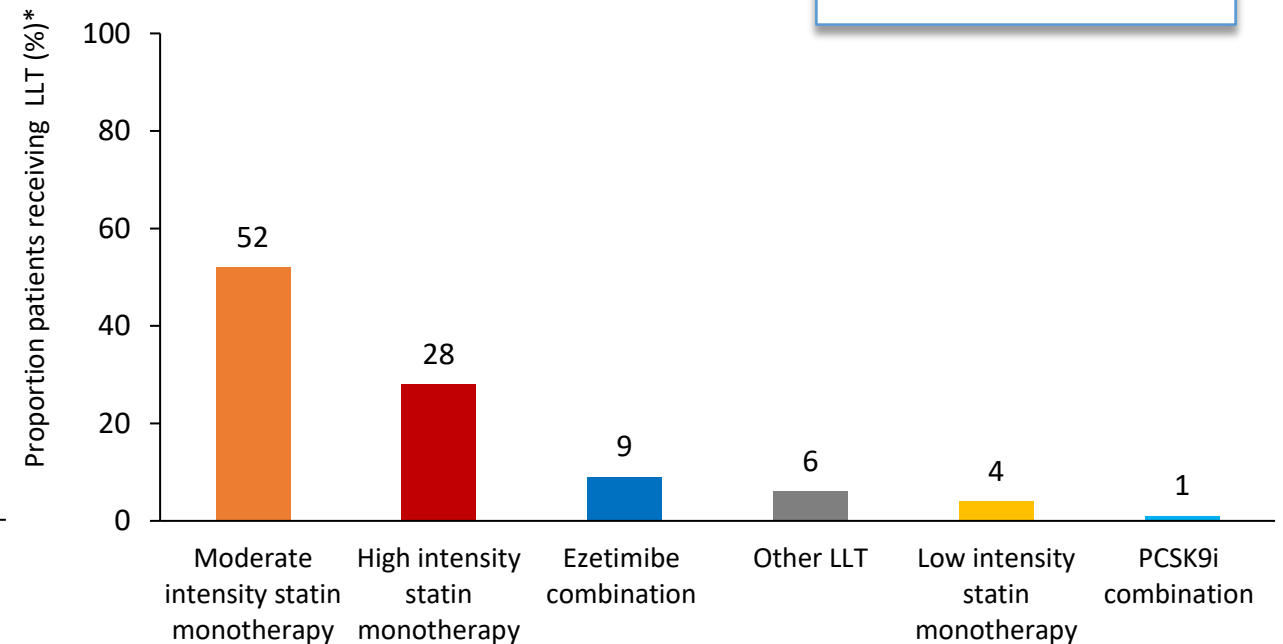


Majority of patients on LLT do not achieve goal and receive monotherapy

2016/2019 goal attainment



LLT use



Da Vinci
N = 5888
Region: EU
Main Inclusion: LLT
Year: 2017-2018

SANTORINI

N = 9044

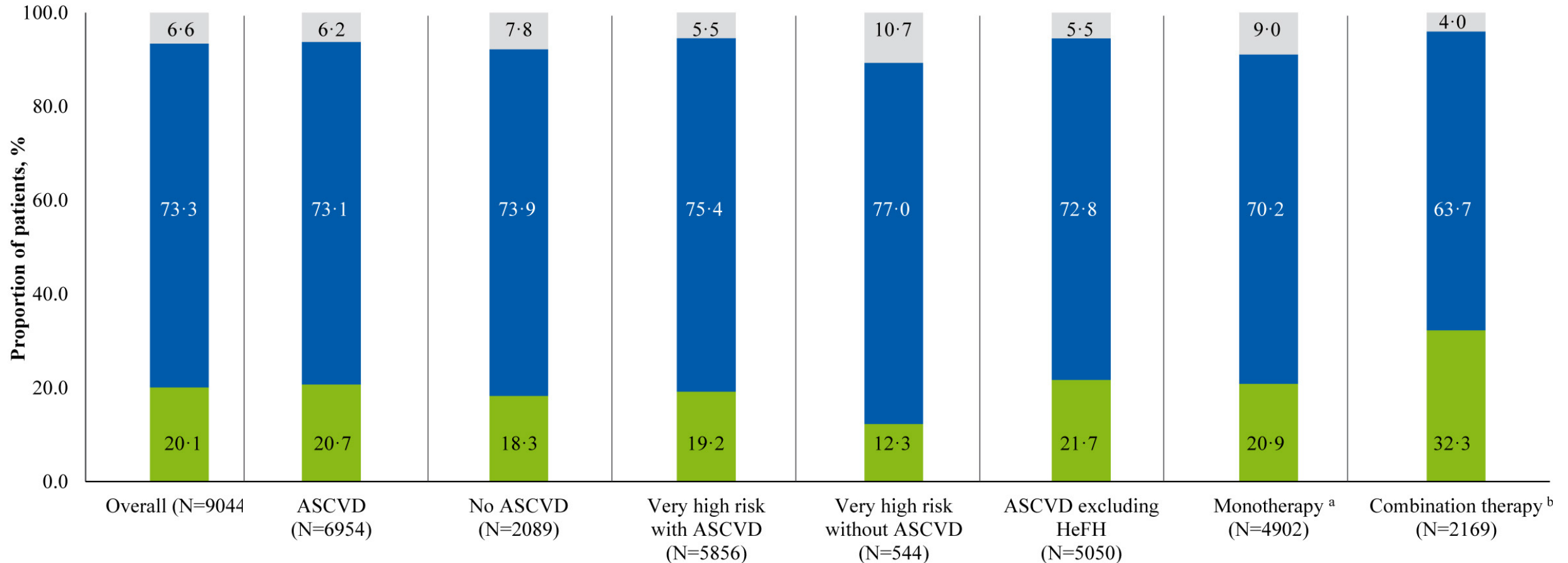
Region: Europe

Main Inclusion: high or very high CV risk

Year: 2020-2021

Most high or very high CV risk patients do not achieve their LDL-C goals.

■ Patients at LDL-C goals ■ Patients not at LDL-C goals ■ Unknown



SANTORINI

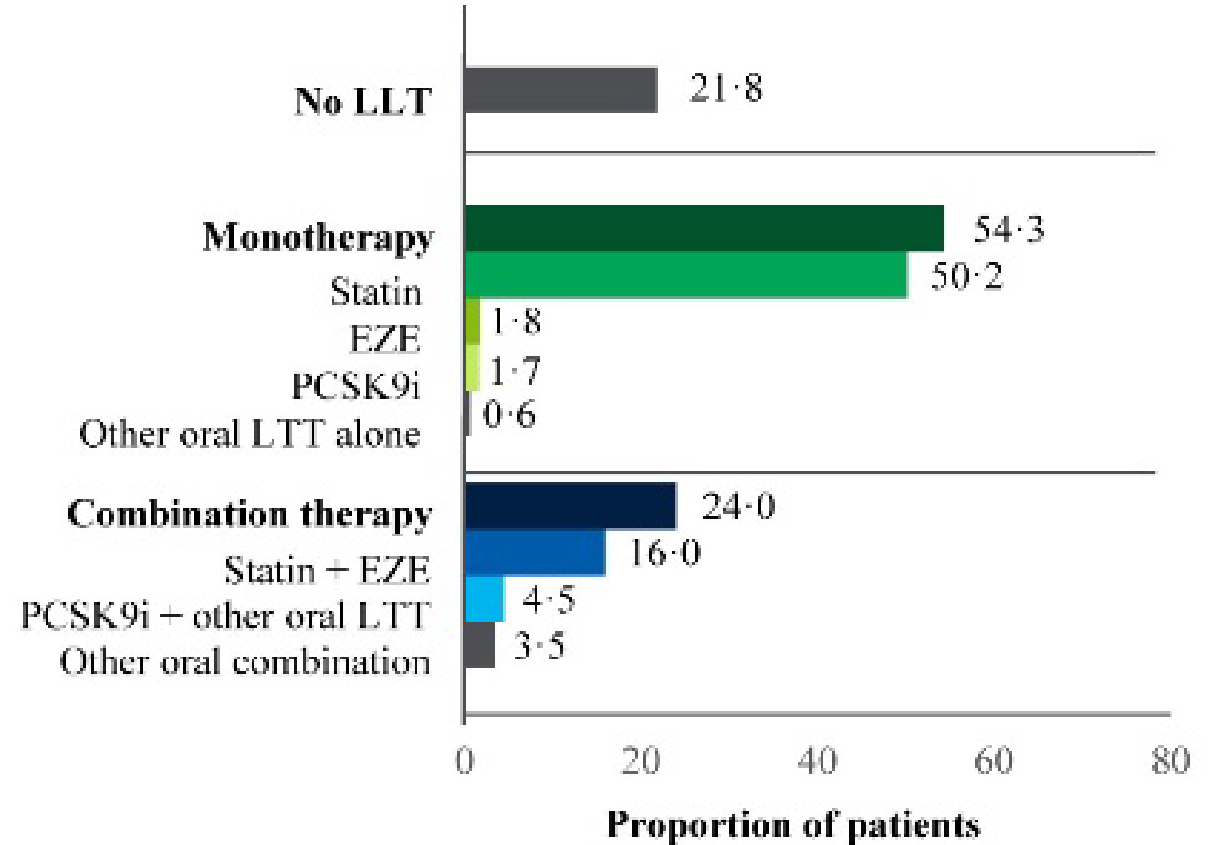
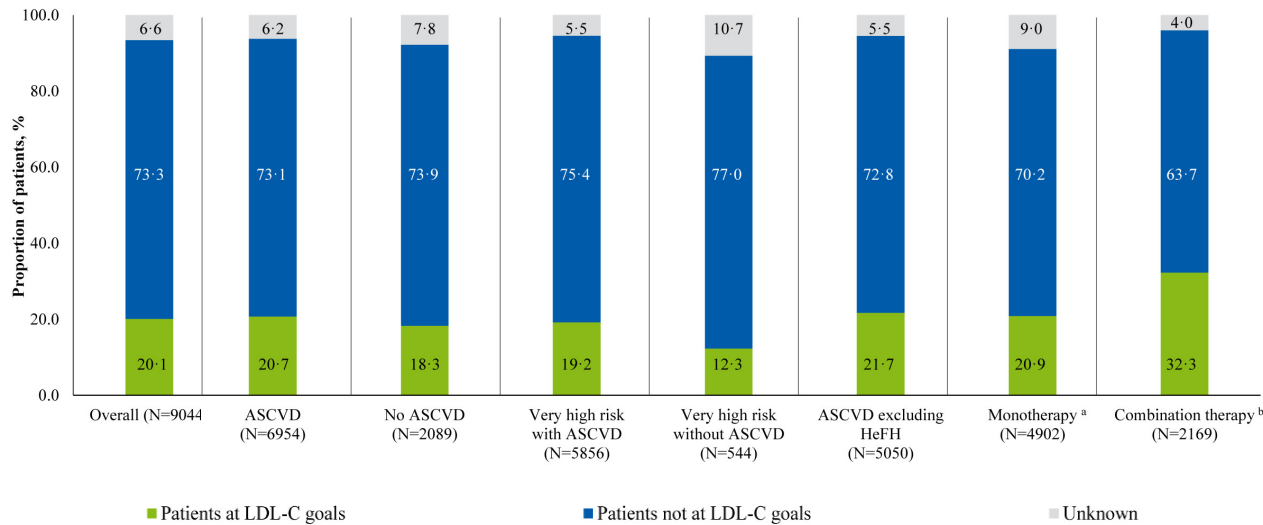
N = 9044

Region: Europe

Main Inclusion: high or very high CV risk

Year: 2020-2021

Most high or very high CV risk patients do not achieve their LDL-C goals.



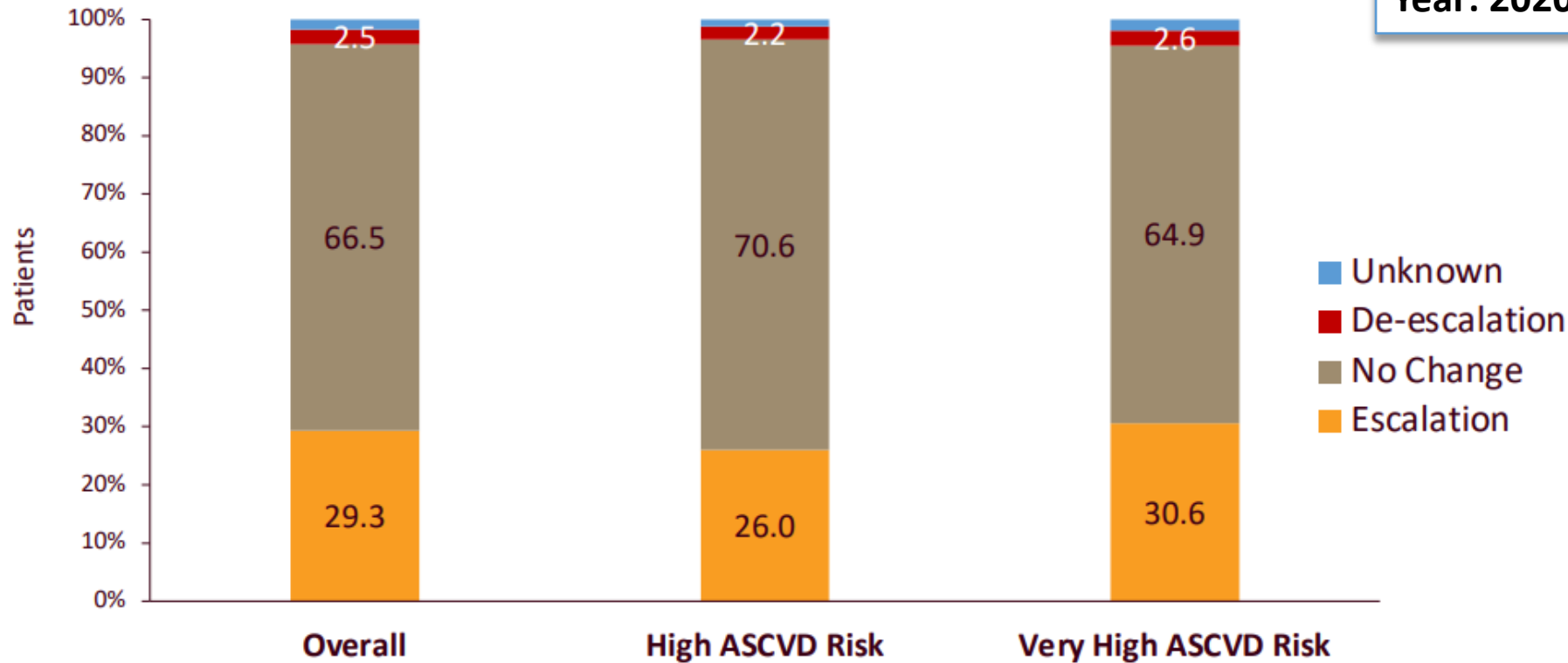
Underestimation of Risk

	Overall (n = 9044)	Risk classification as reported by physician ^a	
		High risk (n = 2637)	Very high risk (n = 6401)
ASCVD, n (%)	6954 (76.9)	1094 (41.5)	5856 (91.5)
Basis for risk classification, n (%)			
Missing	6 (0.1)	0	0
Clinical experience	3089 (34.2)	1154 (43.8)	1935 (30.2)
Routine and/or automated use of risk stratification tools			
Other	77 (0.9)	42 (1.6)	35 (0.6)
Recalculated risk classification by ESC/EAS criteria, n (%)^b	4706 (52.0)	308 (6.5)	4284 (91.0)

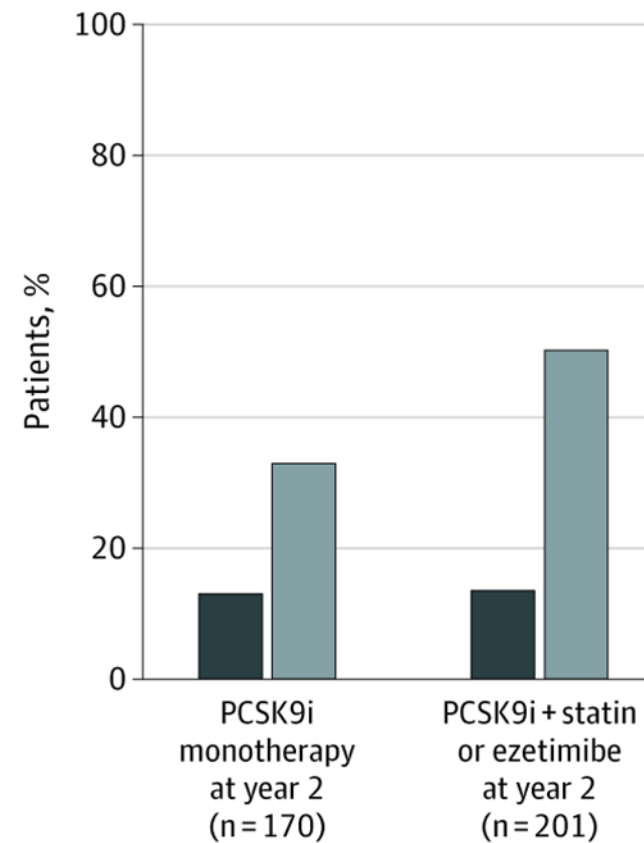
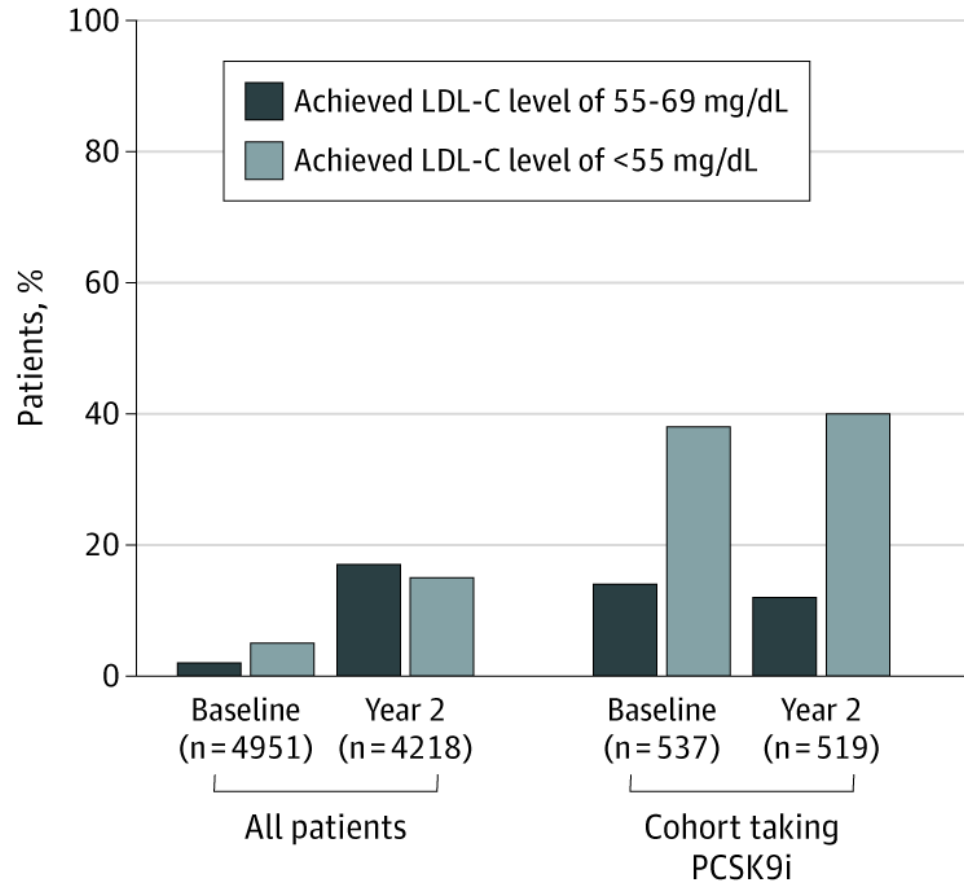
Comparison of Treatment Intensity from Baseline to 1-Year: Missing Opportunities for Escalation.

SANTORINI
N = 9044
Region: Europe
Main Inclusion: high or very high CV risk
Year: 2020-2021

Change in Treatment Intensity Comparing 1-Year with Baseline

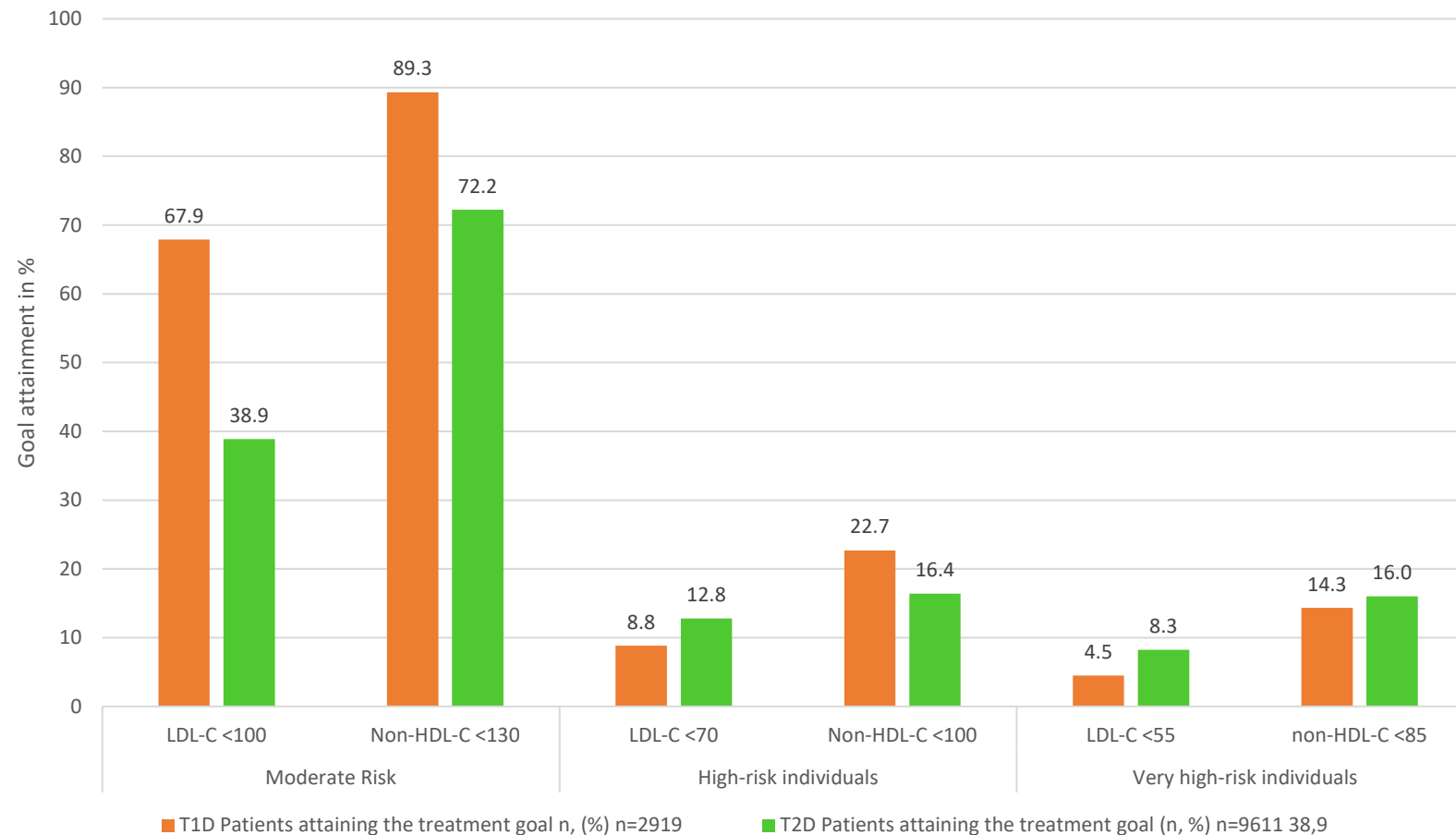


Patients receiving PCSK9-targeting treatment are more likely to achieve their LDL-C goals, even with monotherapy



GOULD
N = 5006
Region: US
Main Inclusion: ASCVD
Year: 2016-2018

Low goal attainment in diabetes: In Type 2 Diabetes less than half receive LLT, with even lower rates in Type 1 Diabetes.



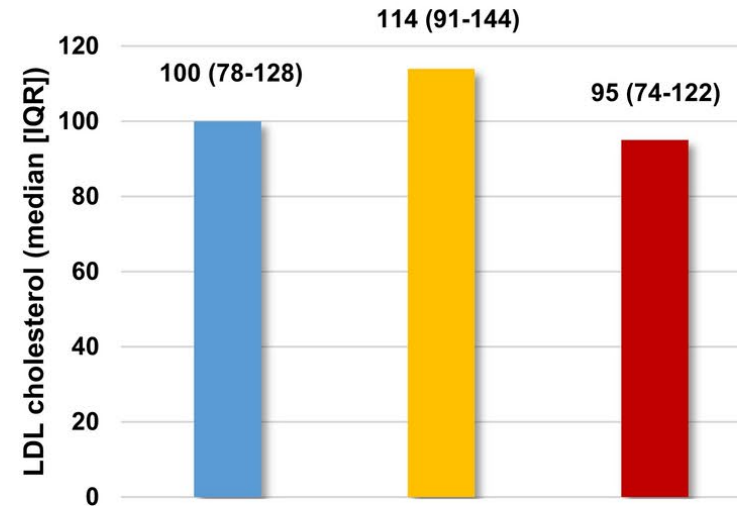
DPV registry
N = 32 170
Region: Germany
Main Inclusion: Diabetes
Year: 2020-2021

T2D: 47% on LLT
T1D: 19% on LLT

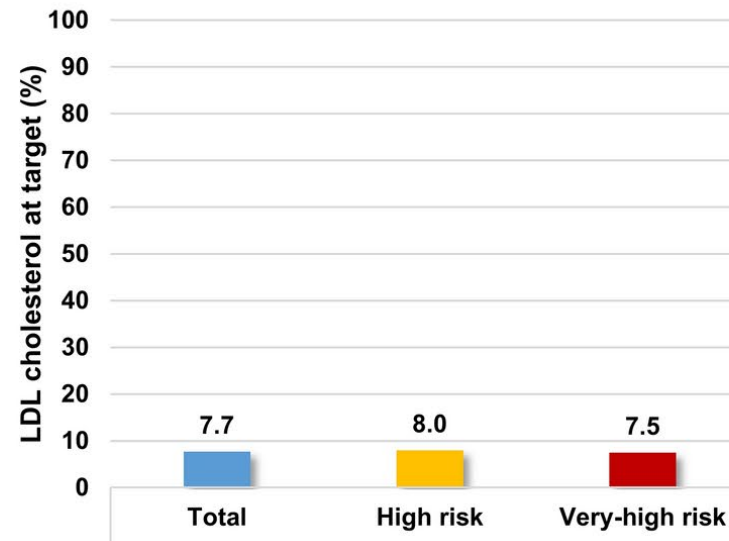
	Moderate Risk	High Risk	Very High Risk
T1DM, n (%)	882 (10,6)	2,590 (31,2)	4,725 (56,8)
T2DM, n (%)	113 (0,5)	4,265 (17,9)	19,174 (80,4)

Statin intolerance: The ultimate challenge

Outpatient's EHR
N = 11,286
Region: Germany
Main Inclusion: Statin intolerance
Year: 2020-2021



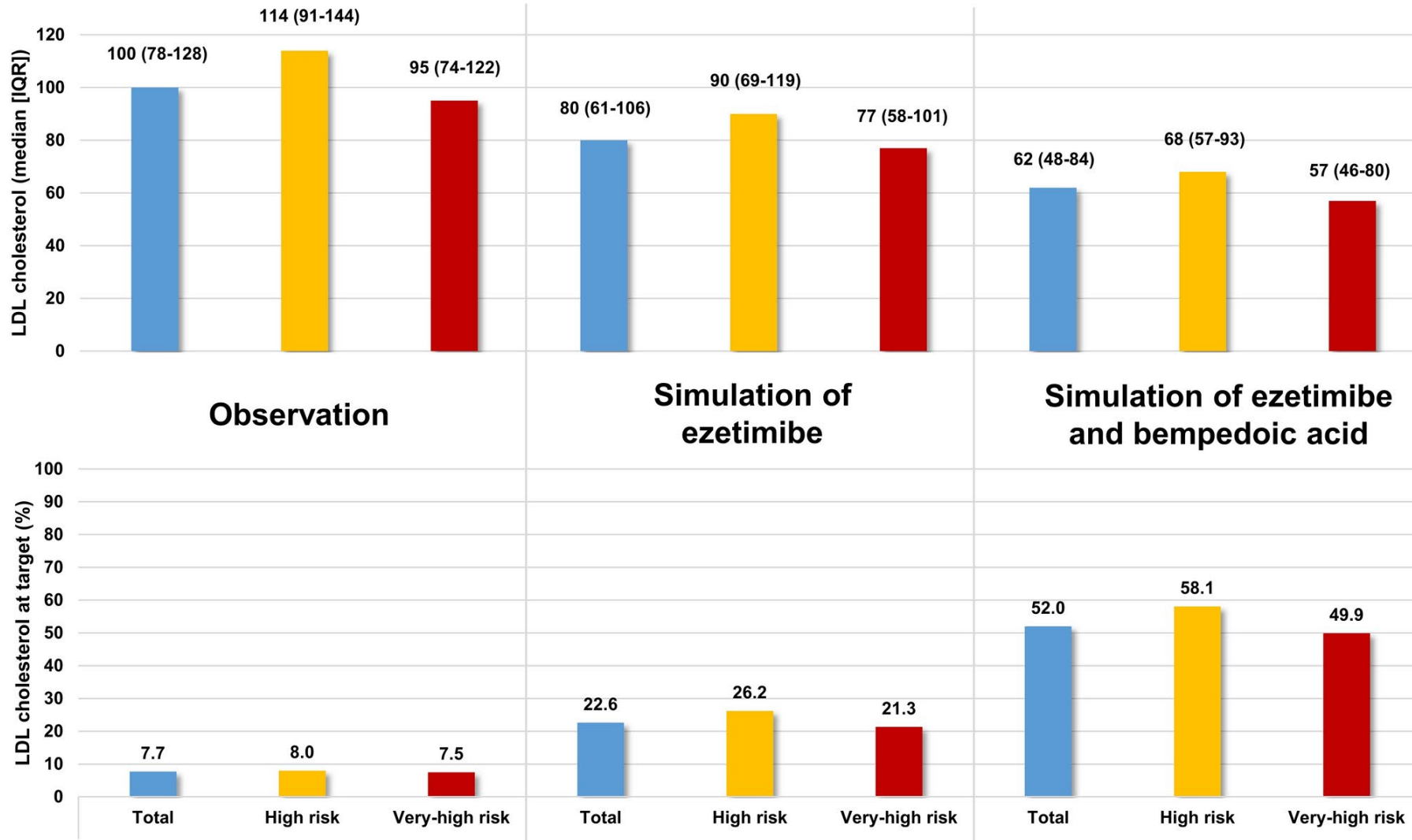
Observation



Statin intolerance: The ultimate challenge

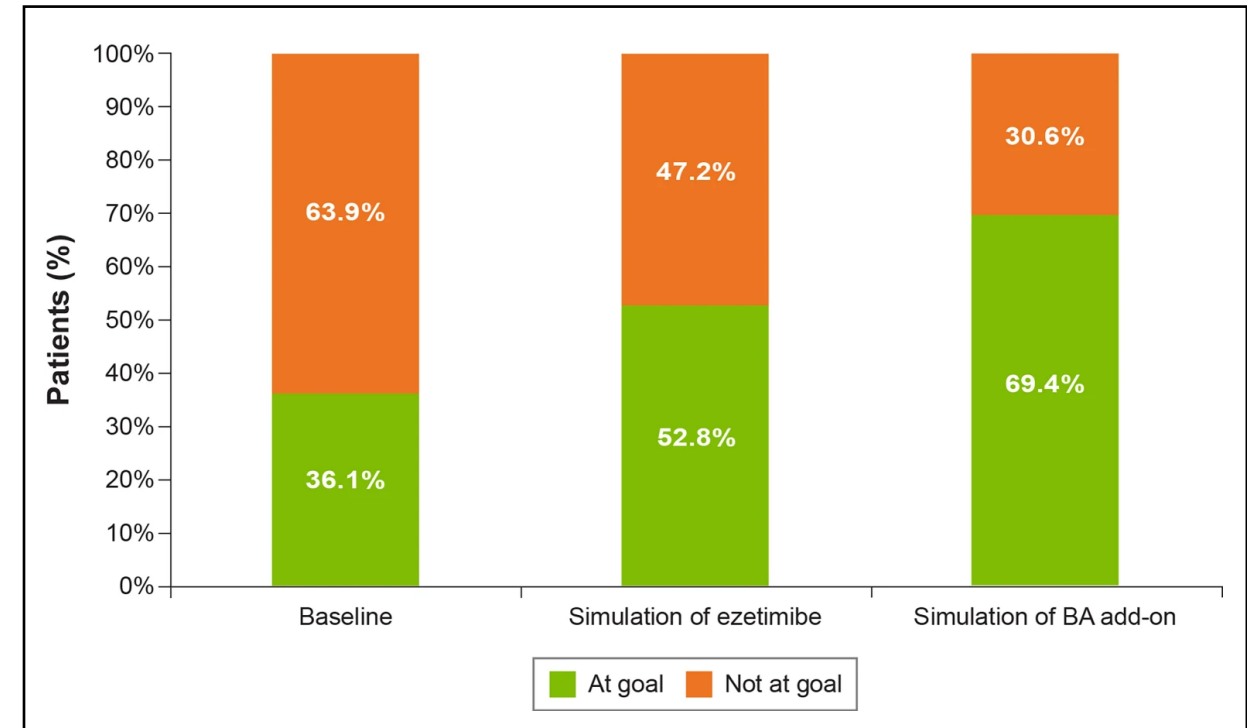
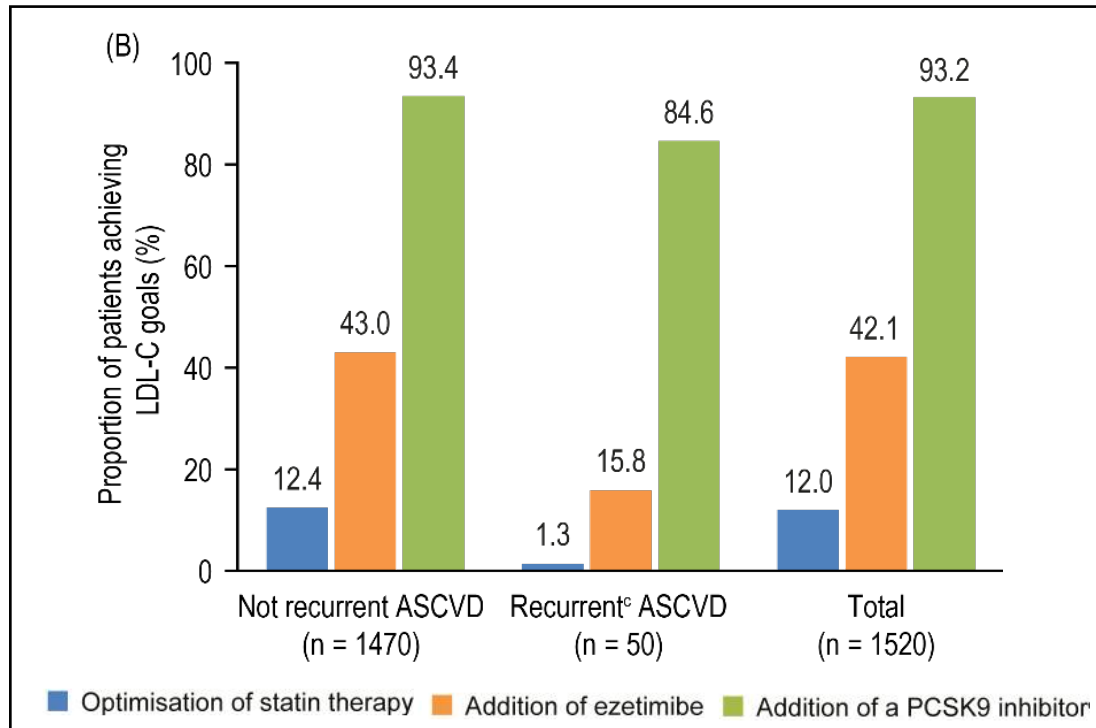
- Simulating the effectiveness of oral treatment

Outpatient's EHR
 N = 11,286
 Region: Germany
 Main Inclusion: Statin intolerance
 Year: 2020-2021



Optimizing LDL-C Goal Attainment: The Role of ESC Guideline Implementation and Combination Therapy

- In the DaVINCI Study 18% of patients with ASCVD achieved LDL-C <1.4mmol/L
- Among these, statin monotherapy was most prevalent with 82%



Conclusion

Persistent Challenges:

- **Low LDL-C Goal Attainment:** Many high-risk patients fail to reach LDL-C targets, often on monotherapy.
- **Underutilization of Intensive Therapies:** Treatment intensity is often inadequate despite available options.
- **Statin Intolerance:** A major barrier, with a notable portion of patients unable to reach LDL-C goals.
- **Missed Opportunities:** Rare treatment escalation, missing chances for better outcomes.

Clinical Implications:

- **Need for Enhanced Risk Stratification:** Routine and automated use of risk assessment tools could improve treatment decisions.
- **Importance of Combination Therapy:** early adoption of combination therapies
- **PCSK9 Inhibitors:** Demonstrated higher efficacy in LDL-C goal attainment, even when used as monotherapy.
- **Focus on Special Populations:** Tailored strategies are essential for populations like persons with diabetes, who show particularly low rates of treatment and goal attainment.