PCV139 MANAGEMENT OF ATHEROGENIC DYSLIPIDEMIA IN THE PRIMARY CARE SETTING IN SPAIN

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Background

- Atherogenic dyslipidemia (AD) is a disorder of lipid and lipoprotein metabolism[1]. It is associated with various diseases such as coronary heart disease, insulin resistance, metabolic syndrome, type 2 diabetes mellitus (DM), or obesity, among others[1,2].

- It might be expected that the prevalence of AD would have an upward trend in parallel with DM or obesity, but in general AD tends to be underdiagnosed and consequently undertreated in clinical practice[1,3].

- Knowing about patient management in routine clinical practice from the point of view of the Primary Care (PC) physician can provide key information to improve the early diagnosis, diagnostic assessment, treatment approach and clinical follow-up of patients in the Spanish healthcare system.

Objective

- **To describe the management of patients with atherogenic dyslipidemia in routine clinical practice in the Primary Care setting in Spain.**

Methods

- Observational, descriptive, cross-sectional study, based on a structured *ad hoc* online questionnaire addressed to PC physicians with experience in AD management in the Spanish healthcare system.

- The questionnaire included 23 items divided in 4 sections (residual cardiovascular risk, general aspects of AD, diagnosis of AD, and treatment of AD) with closed polytomous or categorized responses based on Likert scales. Its content was based on a literature review and was validated by 3 experts in AD.

Results

- A total of 1,029 PC physicians participated in the study. *Table 1*

Table 1. Socio-demographic characteristics of participants

Characteristics	n=1,029
Age, years, mean (SD)	53.47 (7.78)
Men, n (%)	690 (67.06)
Healthcare located in urban area (≥20.000 inhabitants), n (%)	576 (55.98)
Time practicing the profession, years, mean (SD)	26.54 (8.30)
Approximate number of patients with AD visited per month, mean (SD)	76.90 (89.85)

1 RESIDUAL CARDIOVASCULAR RISK

- Most physicians (88.43%) evaluated residual cardiovascular risk in their routine clinical practice. However, 27.89% of them evaluated it only in patients in secondary prevention.

- The majority of participants (96.02%) attributed lipid-origin residual risk to AD.

2 GENERAL ASPECTS OF ATHEROGENIC DYSLIPIDEMIA

- Most physicians considered that AD is characterized by a decrease in HDL-C, an increase in TGs and an increase in small, dense LDL-C particles. *Fig. 1*

- The majority of participants stated that early coronary disease, metabolic syndrome and type 2 diabetes mellitus are AD-associated phenotypes. *Fig. 2*
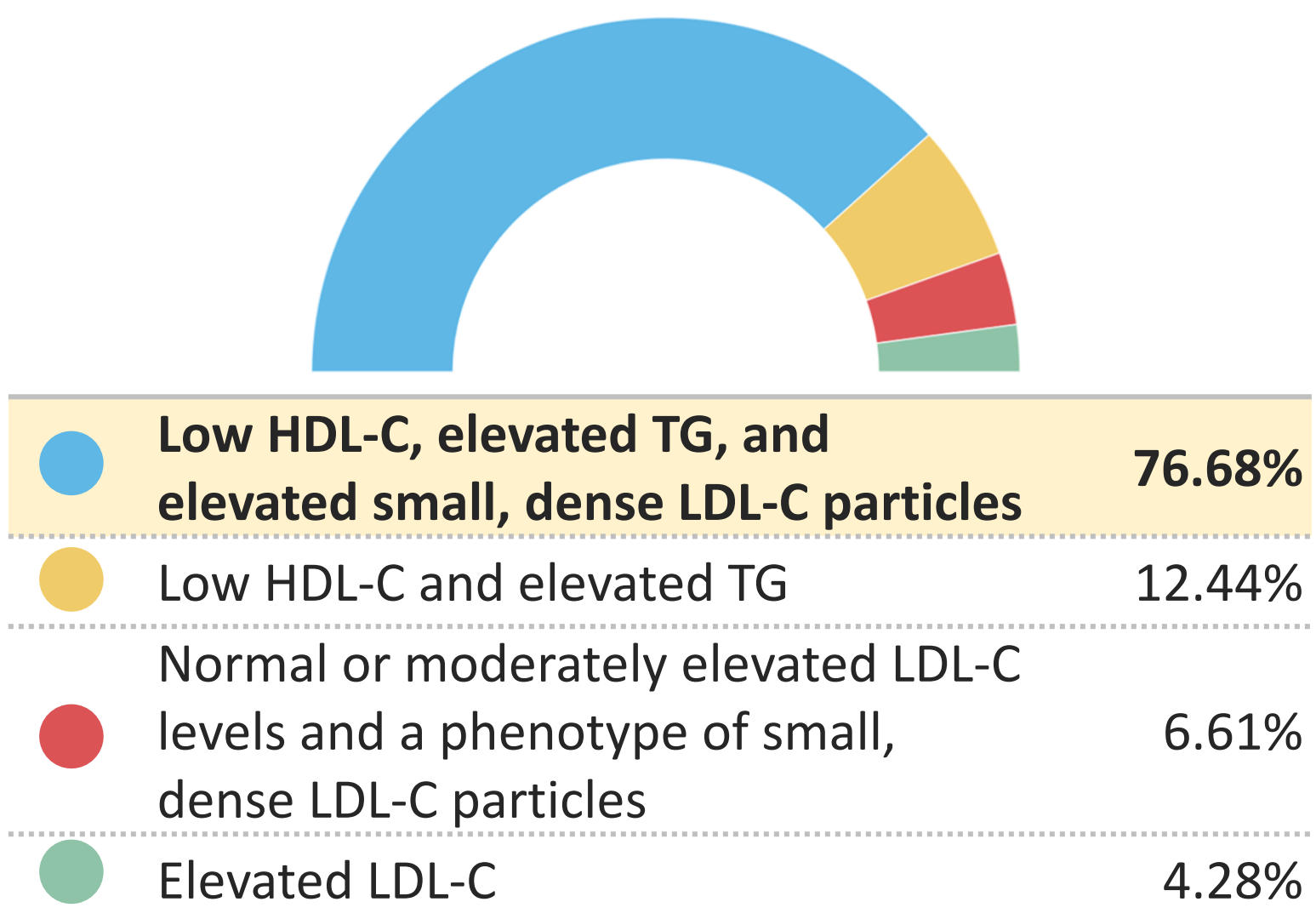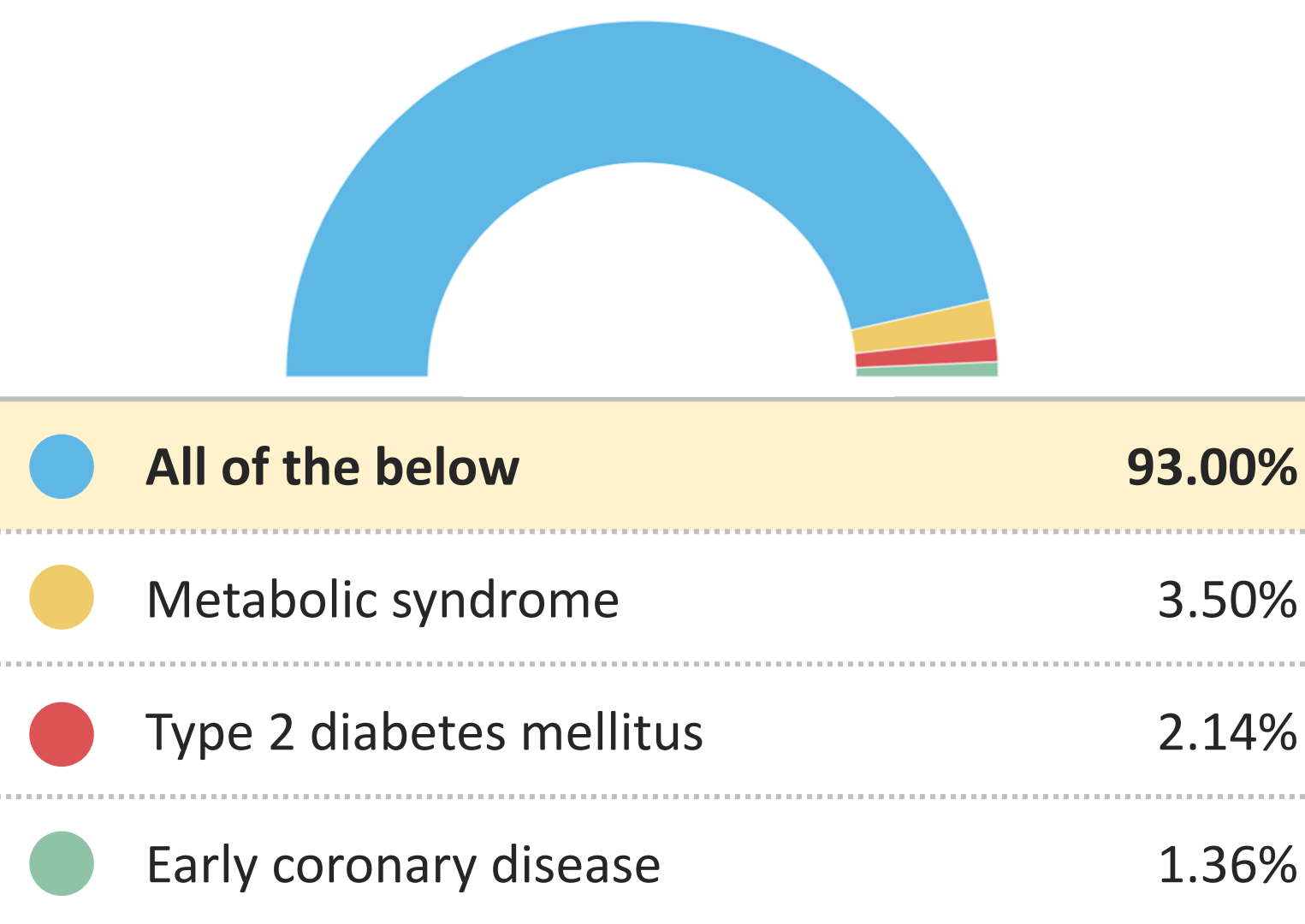
Figure 1. Characteristics of AD

●	Low HDL-C, elevated TG, and elevated small, dense LDL-C particles	76.68%
●	Low HDL-C and elevated TG	12.44%
●	Normal or moderately elevated LDL-C levels and a phenotype of small, dense LDL-C particles	6.61%
●	Elevated LDL-C	4.28%

Figure 2. AD-associated phenotypes

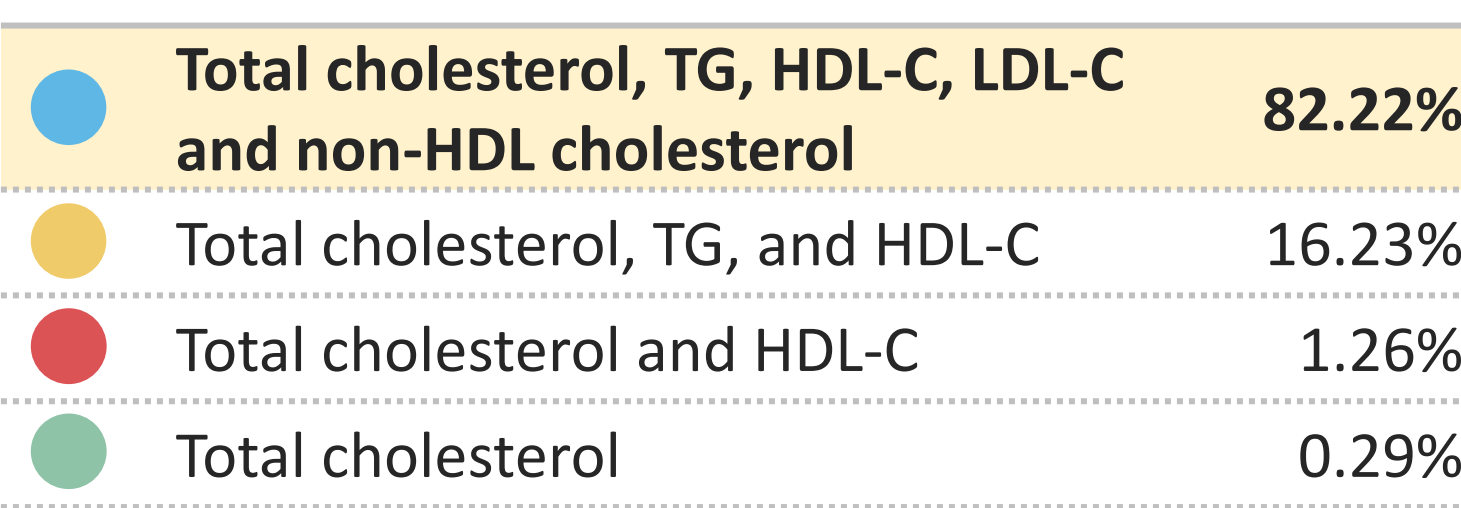|		
●	All of the below	93.00%
●	Metabolic syndrome	3.50%
●	Type 2 diabetes mellitus	2.14%
●	Early coronary disease	1.36%

- Participants (96.99%) indicated that AD is a determinant factor of cardiovascular risk, despite LDL-C levels being appropriate.

3 DIAGNOSIS OF ATHEROGENIC DYSLIPIDEMIA

- Most physicians reported that TC, TG, HDL-C, LDL-C and non-HDL-C are essential measures when evaluating AD. *Fig. 3*

Figure 3. Essential parts of lipid profile for evaluation AD

●	Total cholesterol, TG, HDL-C, LDL-C and non-HDL cholesterol	82.22%
●	Total cholesterol, TG, and HDL-C	16.23%
●	Total cholesterol and HDL-C	1.26%
●	Total cholesterol	0.29%

- Almost all physicians (96.31%) reported that they can request fractionated cholesterol to assess HDL-C and LDL-C, however 3.69% could not.

- Participants assessed the usefulness they perceived of the atherogenic indices and the frequency with which they used these indices in their clinical practice. *Table 2*

Table 2. Frequency of use and usefulness of the atherogenic indices

Atherogenic indices	Frequency of use					Usefulness
TC/HDL-C	23.7%	29.4%	21.9%	12.0%	13.0%	86.3%
LDL-C/HDL-C	21.0%	28.6%	22.1%	13.9%	14.5%	85.0%
TG/HDL-C	10.6%	17.5%	24.3%	20.7%	26.9%	69.3%
Non-HDL-C/HDL-C	3.9%	6.9%	19.4%	26.3%	43.4%	59.9%
LDL-C/ApoB	1.3% / 3.5%	9.6%	25.3%		60.4%	55.9%
ApoB/Apo AI	1.3% / 3.3%	10.9%	24.6%		60.0%	59.4%

■ Very often ■ Often ■ Sometimes ■ Almost never ■ Never 👍 Useful and very useful

4 TREATMENT OF ATHEROGENIC DYSLIPIDEMIA

- Almost all physicians considered that the first step in AD treatment should be diet, regular exercise, smoking cessation and, if necessary, pharmaceutical treatment. *Fig. 4*

- A total of 69.97% participants stated that pharmaceutical treatment should begin with the combination of a statin and a fibrate (being fenofibrate the most appropriate one). *Fig. 5*
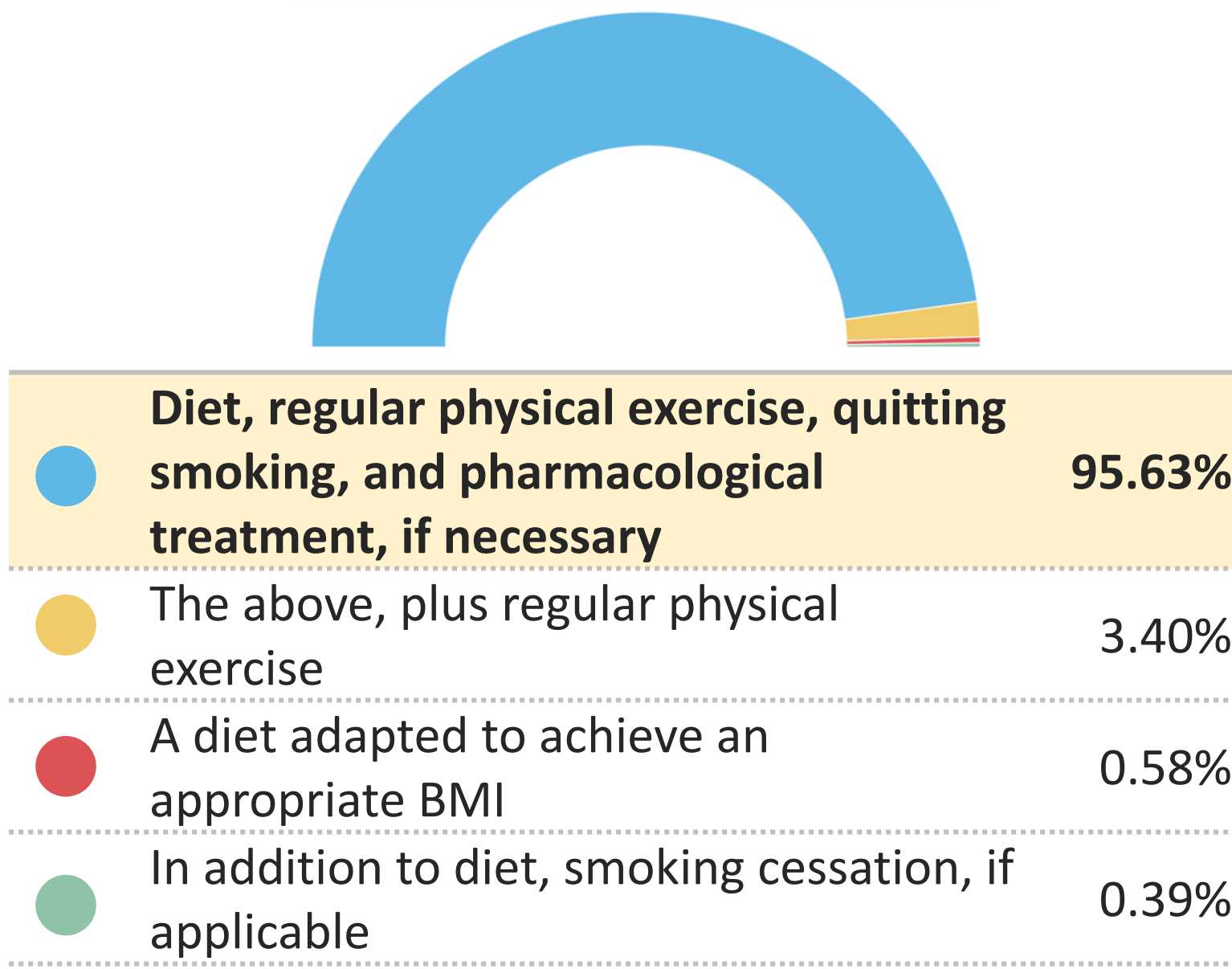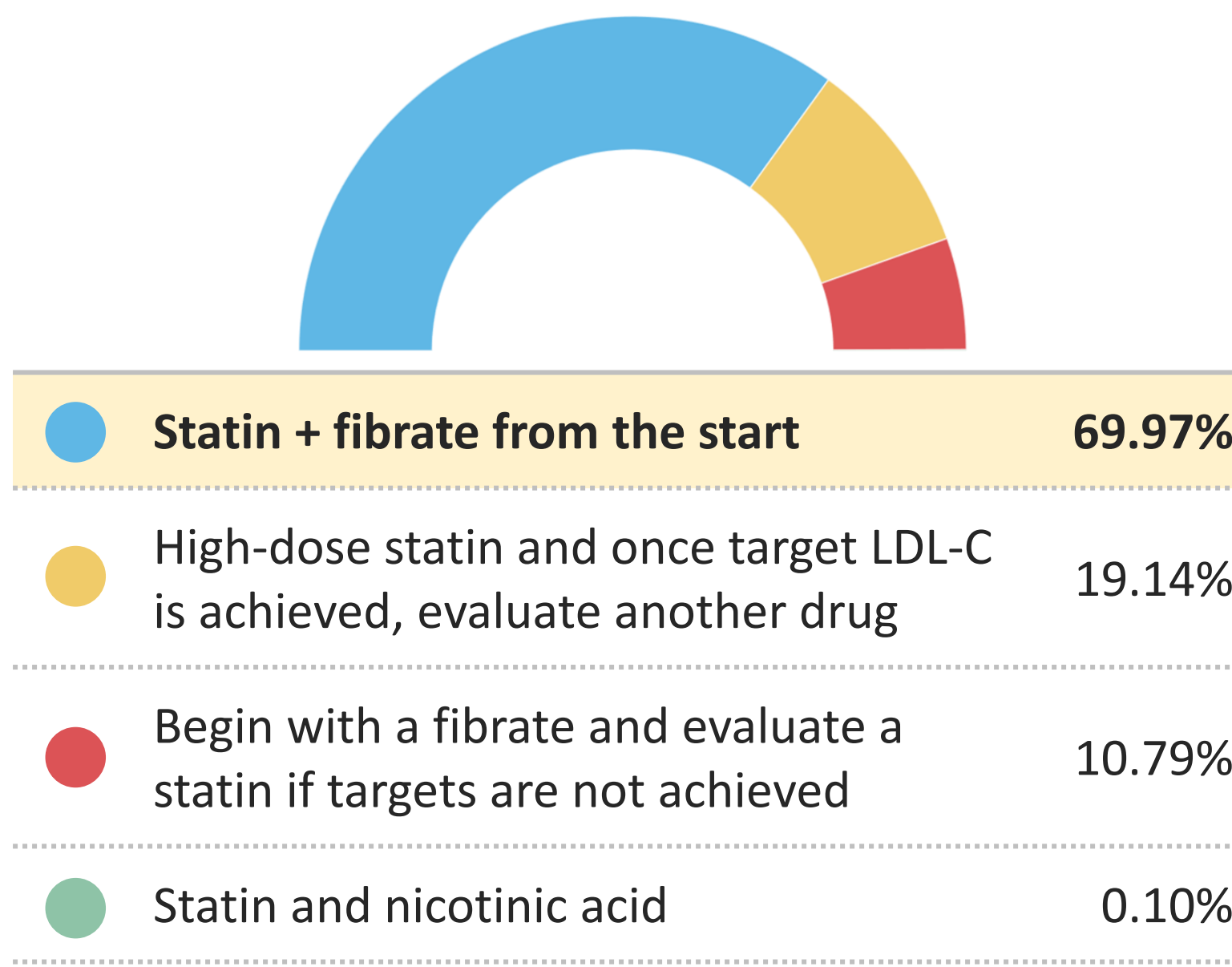
Figure 4. First step in AD treatment

●	Diet, regular physical exercise, quitting smoking, and pharmacological treatment, if necessary	95.63%
●	The above, plus regular physical exercise	3.40%
●	A diet adapted to achieve an appropriate BMI	0.58%
●	In addition to diet, smoking cessation, if applicable	0.39%

Figure 5. AD treatment

●	Statin + fibrate from the start	69.97%
●	High-dose statin and once target LDL-C is achieved, evaluate another drug	19.14%
●	Begin with a fibrate and evaluate a statin if targets are not achieved	10.79%
●	Statin and nicotinic acid	0.10%

Conclusions

Physicians have access to guidelines and recommendations regarding AD management, however, it is necessary to continue rising awareness about the importance of early detection and optimal control and management of AD to reduce patients' cardiovascular risk.

References: 1. Millán Núñez-Cortés J, et al. Guía Clínica para la Detección, Diagnóstico y Tratamiento de la Dislipemia Aterogénica en Atención Primaria. SEA, SEMERGEN, Sociedad Española de Medicina de Familia. 2013. 2. Ascaso JF, et al. Clínica e Investig en Arterioscler. 2017;29(2):86–91. 3. Foro de Dislipemia Aterogénica. Clin Invest Arter. 2014;25(2):83–91.