

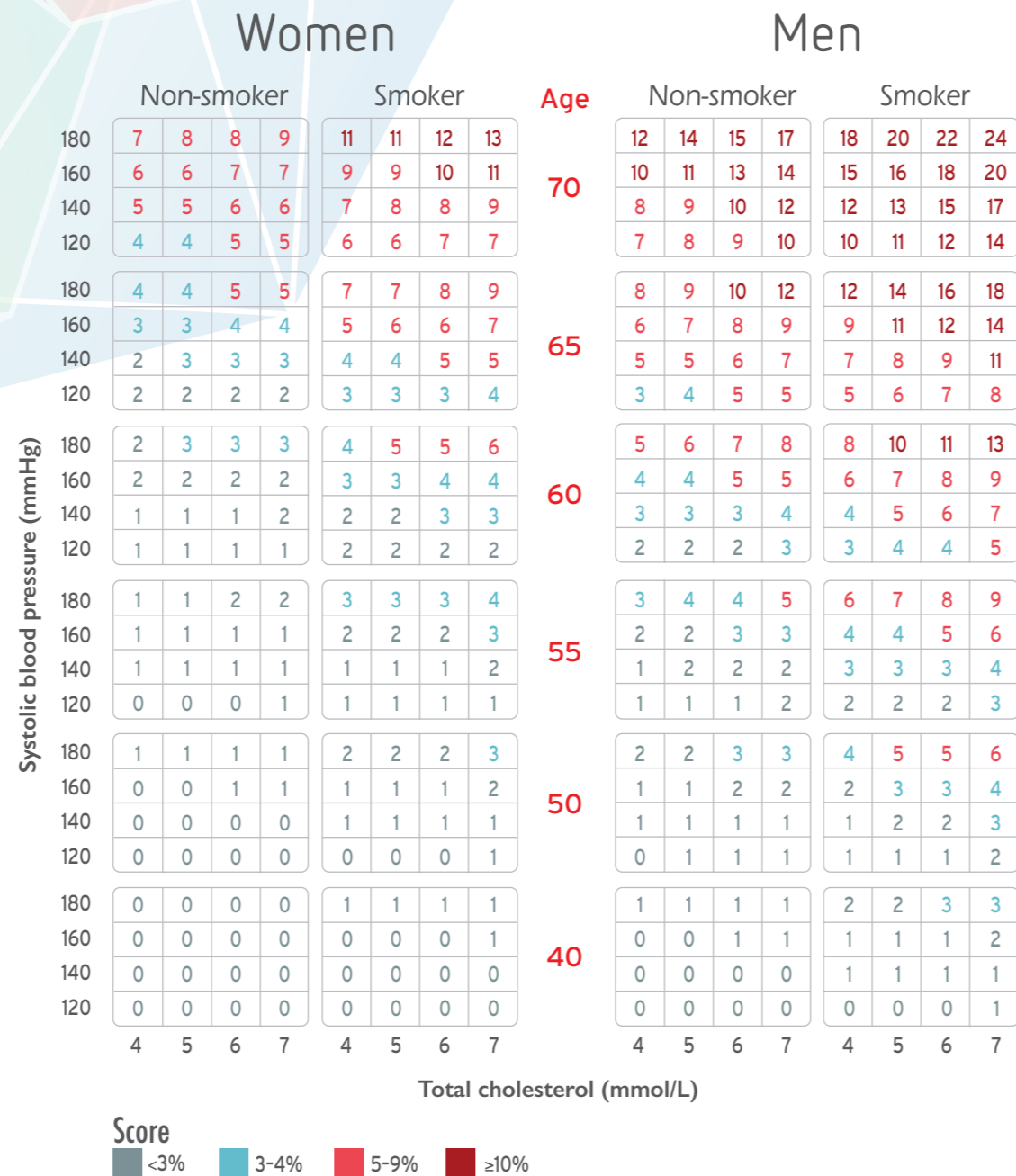
Excelling in **Care**



**Rovin**  
rosuvastatin

## 2019 ESC/EAS Guidelines for the management of dyslipidaemias: lipid modification to reduce cardiovascular risk

Systematic Coronary Risk Estimation chart for European populations at high cardiovascular disease risk. The 10-year risk of fatal cardiovascular disease in populations at high cardiovascular disease risk based on the following risk factors: age, gender, smoking, systolic blood pressure, and total cholesterol. To convert the risk of fatal cardiovascular disease to risk of total (fatal & non-fatal) cardiovascular disease, multiply by 3 in men and by 4 in women, and slightly less in older people. Note: the Systematic Coronary Risk Estimation chart is for use in people without overt cardiovascular disease, diabetes (type 1 and 2), chronic kidney disease, familial hypercholesterolaemia, or very high levels of individual risk factors because such people are already at high risk and need intensive risk factor management. Cholesterol: 1 mmol/L = 38.67 mg/dL. The SCORE risk charts presented above differ slightly from those in the 2016 European Society of Cardiology/European Atherosclerosis Society Guidelines for the management of dyslipidaemias and the 2016 European Guidelines on cardiovascular disease prevention in clinical practice, in that: (i) age has been extended from age 65 to 70; (ii) the interaction between age and each of the other risk factors has been incorporated, thus reducing the overestimation of risk in older persons in the original Systematic Coronary Risk Estimation charts; and (iii) the cholesterol band of 8 mmol/L has been removed, since such persons will qualify for further evaluation in any event. SCORE = Systematic Coronary Risk Estimation.



## Intervention strategies as a function of total cardiovascular risk and low-density lipoprotein cholesterol level

Total CV risk (SCORE) %	Untreated LDL-C levels					
	<1.4 mmol/L (55 mg/dL)	1.4 to <1.8 mmol/L (55 to <70 mg/dL)	1.8 to <2.6 mmol/L (70 to <100 mg/dL)	2.6 to <3.0 mmol/L (100 to <116 mg/dL)	3.0 to <4.9 mmol/L (116 to <190 mg/dL)	≥4.9 mmol/L (≥190 mg/dL)
<1, low-risk	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle intervention, consider adding drug if uncontrolled	Lifestyle intervention and concomitant drug intervention
Class <sup>a</sup> /Level <sup>b</sup>	I/C	I/C	I/C	I/C	I/a/A	I/a/A
≥1 to <5, or moderate risk	Lifestyle advice	Lifestyle advice	Lifestyle advice	Lifestyle intervention, consider adding drug if uncontrolled	Lifestyle intervention, consider adding drug if uncontrolled	Lifestyle intervention and concomitant drug intervention
Class <sup>a</sup> /Level <sup>b</sup>	I/C	I/C	I/a/A	I/a/A	I/a/A	I/a/A
≥5 to <10, or high-risk	Lifestyle advice	Lifestyle advice	Lifestyle intervention, consider adding drug if uncontrolled	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention
Class <sup>a</sup> /Level <sup>b</sup>	I/a/A	I/a/A	I/a/A	I/a/A	I/a/A	I/a/A
≥10, or at very-high risk due to a risk condition	Lifestyle advice	Lifestyle intervention, consider adding drug if uncontrolled	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention
Class <sup>a</sup> /Level <sup>b</sup>	I/a/B	I/a/A	I/a/A	I/a/A	I/a/A	I/a/A
Very-high-risk	Lifestyle intervention, consider adding drug if uncontrolled	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention	Lifestyle intervention and concomitant drug intervention
Class <sup>a</sup> /Level <sup>b</sup>	I/a/A	I/a/A	I/a/A	I/a/A	I/a/A	I/a/A

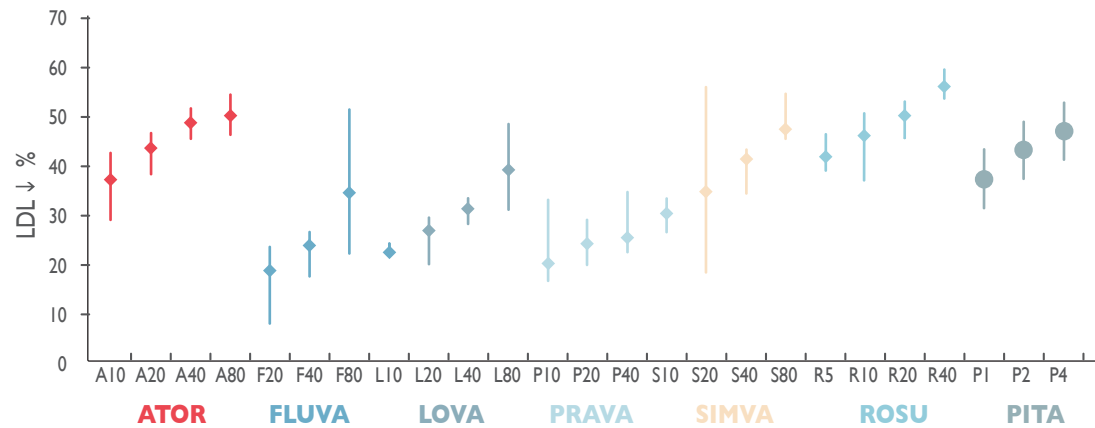
CV = cardiovascular; LDL-C = low-density lipoprotein cholesterol; SCORE = Systematic Coronary Risk Estimation.  
<sup>a</sup>Class of recommendation.  
<sup>b</sup>Level of evidence.

## Risk categories and LDL-C targets

Risk categories	Clinical data	LDL-C Target
Very high-risk	ASCVD, either clinical or unequivocal on imaging (CT scan included in these guidelines) Diabetes mellitus with target organ damage, long standing duration (>20 years), or associated with other risk factors eGFR <30 mL/min/1.73m <sup>2</sup> Familial hypercholesterolemia (FH) with ASCVD or with another major risk factor SCORE ≥10%	<55 mg/dL both in primary and secondary prevention <40 mg/dL in selected patients with recurrent ASCVD
High-risk	Markedly elevated single risk factors, including total cholesterol >310 mg/dL, LDL-C >190 mg/dL or blood pressure >180/110 mmHg FH without other risk factors Diabetes with a duration >10 years or with another risk factor eGFR 30-59 mL/min/1.73m <sup>2</sup> Calculated SCORE ≥5% and <10%	<70 mg/dL
Moderate risk	Younger patients (Type 1 diabetes mellitus <35 years; Type 2 diabetes mellitus <50 years), without other risk factors Calculated SCORE >1% and <5%;	<100 mg/dL should be considered
Low risk	Low risk calculated SCORE <1% fatal cardiovascular disease	<116 mg/dL may be considered

(Summary reprinted by permission of Oxford University Press on behalf of the European Society of Cardiology from reference [2] Mach F, et al. 2019 ESC/EAS Guidelines for the management of dyslipidaemias: lipid modification to reduce cardiovascular risk. Eur Heart J. 2020 Jan 1;41(1):111-188. doi: 10.1093/eurheartj/ehz455. <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Dyslipidaemias-Management-of-ASCVD>: atherosclerotic cardiovascular disease; CT: computed tomography; eGFR: estimated glomerular filtration rate; FH: familial hypercholesterolaemia; LDL-C: low-density lipoprotein cholesterol.

## Drugs for treatment of hypercholesterolaemia



Weng TC, et al. J Clin Pharm Ther. 2010;35:139-151

Mukhtar RY, et Al. Int J Clin Pract. 2055;59(2):239-252

**Supplementary** A systematic review and meta-analysis of the therapeutic equivalence of statins. ATOR = atorvastatin; FLUVA = fluvastatin; LOVA = lovastatin; PRAVA = pravastatin; SIMVA = simvastatin; ROSU = rosuvastatin; PITA = pitavastatin.

## Recommendations for lipid-lowering therapy in patients with acute coronary syndrome and patients undergoing percutaneous coronary intervention

### RECOMMENDATIONS

It is recommended to initiate or continue high dose statins early after admission in all ACS patients without contra-indicated or history of intolerance, regardless of initial LDL-C values.

**Class<sup>a</sup>** **Level<sup>b</sup>**

**I** **A**

If the LDL-C target is not reached with the highest tolerable statin dose, ezetimibe should be considered in combination with statins in post-ACS patients.

**IIa** **B**

If the LDL-C target is not reached with the highest tolerable statin dose and/or ezetimibe, PCSK9 inhibitors may be considered on top of lipid-lowering therapy; or alone or in combination with ezetimibe in statin intolerant patients or in whom a statin is contra-indicated.

**IIb** **C**

Lipids should be re-evaluated 4-6 weeks after ACS to determine whether target levels of LDL-C <1.8 mmol/L (<70 mg/dL) or a reduction of at least 50% if the baseline is between 1.8 and 3.5 mmol/L (70 and 135 mg/dL) have been reached and whether there are any safety issues. The therapy dose should then be adapted accordingly.

**IIa** **C**

Routine short pretreatment or loading (on the background of chronic therapy) with high-dose statins before PCI should be considered in elective PCI or in NSTEMI-ACS.

**IIa** **A**

ACS ¼ acute coronary syndrome; LDL-C ¼ low-density lipoprotein-cholesterol; NSTEMI-ACS ¼ non-ST elevation acute coronary syndrome; PCI ¼ percutaneous coronary intervention; PCSK9 ¼ proprotein convertase subtilisin/kexin type 9.

<sup>a</sup>Class of recommendation.

<sup>b</sup>Level of evidence.

## Rovin (Rosuvastatin) Indications:

### TREATMENT OF HYPERCHOLESTEROLAEMIA

Adults, adolescents and children aged 6 years or older with primary hypercholesterolaemia (type IIa including heterozygous familial hypercholesterolaemia) or mixed dyslipidaemia (type IIb) as an adjunct to diet when response to diet and other non-pharmacological treatments (e.g. exercise, weight reduction) is inadequate.

Homozygous familial hypercholesterolaemia as an adjunct to diet and other lipid lowering treatments (e.g. LDL apheresis) or if such treatments are not appropriate.

### PREVENTION OF CARDIOVASCULAR EVENTS

Prevention of major cardiovascular events in patients who are estimated to have a high risk for a first cardiovascular event, as an adjunct to correction of other risk factors.

