



Review

Global Trends in Epidemiology and Management of Dyslipidemia

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Table S1. Differences of guideline recommendations for management of plasma lipid disorders.

Super-region/Guidelines	Definitions of Extreme Risk	Definitions of Very High Risk	Definitions of High Risk	Treatment Goals of LDL-C
East and Southeast Asia				
Chinese Society of Cardiology (2016) [1]	NA	ASCVD patients	<ol style="list-style-type: none"> LDL-C ≥ 4.9 mmol/L or TC ≥ 7.2 mmol/L Diabetes patients [LDL-C: 1.8–4.9 mmol/L (or TC: 3.1–7.2 mmol/L) and age ≥ 40 years] 10-year risk of ASCVD $\geq 10\%$ 	Very high risk: 70 mg/dL High risk: 100 mg/dL
Philippine Heart Association (2020) [2]	NA	NA	NA	Individuals with clinical ASCVD: 55 mg/dL FH without ASCVD or without major risk factor/target organ damage: 70 mg/dL Individuals with DM: 100 mg/dL
Ministry of Health (Malaysia) (2017) [3]	NA	<ol style="list-style-type: none"> Established CVD DM with proteinuria or with a major risk factor CKD (Stage 4/5) 	<ol style="list-style-type: none"> CKD (Stage 3) DM without target organ damage Very high levels of individual risk factors 10-year risk for CVD $> 20\%$ 	Very high risk: 70 mg/dL High risk: 100 mg/dL
South Asia				
Lipid Association of India (2016) [4]	NA	<ol style="list-style-type: none"> Preexisting ASCVD DM with evidence of target organ damage or ≥ 2 other major ASCVD risk factors HoFH 	10-year risk for ASCVD death, MI or stroke $> 15\%$	Very high risk: 50 mg/dL High risk: 70 mg/dL
High-income Asia Pacific				

Japan Atherosclerosis Society (2017) [5]	NA	NA	10-year risk of CAD \geq 9%	CAD patients who are also suffering from high risk conditions: 70 mg/dL History of CAD: 100 mg/dL High risk: 120 mg/dL
Korean Society of Lipid and Atherosclerosis (2018) [6]	NA	ASCVD patients	1. Carotid artery disease 2. Abdominal aneurysm 3. DM	Very high risk: 70 mg/dL High risk: 100 mg/dL
Ministry of Health (Singapore) (2016) [7]	NA	1. Established CAD, atherosclerotic cerebrovascular disease, aortic aneurysm or peripheral artery disease 2. DM with CKD 3. FH	1. Individuals with moderate to severe CKD 2. Individuals with DM 3. 10-year risk of CAD > 20%	Very high risk: 80 mg/dL High risk: 100 mg/dL
Central Asia, Middle East and North Africa				
Ministry of Public Health Qatar (2020) [8]	NA	NA	NA	Patients on high-intensity statin therapy: 70 mg/dL Patients on moderate-intensity statin therapy: 100 mg/dL
Central and Eastern Europe				
Polish Lipid Association (2021) [9]		1. Pol-SCORE risk > 20%; 2. Serious ACS event *; 3. Status post-ACS and FH; 4. Status post-ACS in a patient with DM with additional risk factors	1. Pol-SCORE risk \geq 10% and \leq 20% in primary prevention; 2. Documented CVD	Extreme risk: 40 mg/dL Pol-SCORE risk \geq 5% and < 10% Very high risk: 55 mg/dL High risk: 70 mg/dL
High-income Western countries				
AHA/ACC (2018) [10]	NA	Patients with clinical ASCVD who have a history of multiple major ASCVD events or 1 major ASCVD event and multiple high risk conditions	10-year risk of ASCVD > 20%	Very high-risk: 70 mg/dL
ACC Consensus (2022) [11]	NA	Patients with clinical ASCVD who have a history of multiple major ASCVD events or 1 major ASCVD event and multiple high risk conditions	NA	Very high risk: 55 mg/dL

AACE/ACE (2017) [12]	1.	Progressive ASCVD including unstable angina in patients after achieving an LDL-C < 70 mg/dL	1.	Established or recent hospitalization for ACS, coronary, carotid or peripheral vascular disease, 10-year risk > 20%	1.	≥2 risk factors and 10-year risk 10–20%	Extreme risk: 55 mg/dL Very high risk: 70 mg/dL High risk: 100 mg/dL
	2.	Established clinical CVD in patients with DM, CKD 3/4, or HeFH	2.	DM or CKD 3/4 with 1 or more risk factor(s)	2.	DM or CKD stage 3/4 with no other risk factors	
	3.	History of premature ASCVD	3.	HeFH			
Canadian Cardiovascular Society (2021) [13]	NA	NA			Framingham risk score ≥ 20%	Secondary prevention	ASCVD patients: 70 mg/dL
National Vascular Disease Prevention Alliance (Australia) (2012) [14]	NA	NA			5-year risk of CVD > 15%	Do not recommend establishing target values	lipid-lowering
New Zealand Ministry of Health (2018) [15]	NA	NA			5-year risk of CVD ≥ 15%	Individuals with a five-year CVD risk ≥ 15%: 70 mg/dL	
National Institute for Health and Care Excellence (2014) [16]	NA	NA			10-year risk of CVD ≥ 20%	Do not recommend establishing target values	lipid-lowering
ESC/EAS (2019) [17]	NA		1. 2. 3. 4. 5.	ASCVD patients SCORE ≥ 10% FH with ASCVD or with another major risk factor Severe CKD DM and target organ damage: ≥ 3 major risk factors; or early onset of T1DM of long duration (>20 years)	1. 2. 3. 4. 5.	SCORE ≥ 5% and <10% Markedly elevated single risk factors FH without other major risk factors Moderate CKD DM without target organ damage, with DM duration ≥10 years or other additional risk factor	Patients with ASCVD who experience a second vascular event within 2 years: 40 mg/dL Very high risk: 55 mg/dL High risk: 70 mg/dL
Sub-Saharan Africa							
South African Heart Association (2018) [18]	NA			Framingham CVD risk > 30%	Framingham CVD risk > 15% and ≤30%	Very high risk: 70 mg/dL High risk: 97mg/dL	

Abbreviations: AACE, American Association of Clinical Endocrinologists; ACC, American College of Cardiology; ACE, American College of Endocrinology; ACS, acute coronary syndrome; AHA, American Heart Association; ASCVD, atherosclerotic cardiovascular disease; CAD, coronary artery disease; CKD, chronic kidney disease; CVD, cardiovascular disease; DM, diabetes mellitus; ESC, European Society of Cardiology; EAS, European Atherosclerosis Society; FH, familial hypercholesterolemia; HeFH, heterozygous familial hypercholesterolemia; HoFH, homozygous familial hypercholesterolemia; LDL-C, low-density lipoprotein cholesterol; MI, myocardial infarction; NA, not available; Pol-SCORE, SCORE tables calibrated for the Polish population; SCORE, Systematic Coronary Risk Estimation; T1DM, type 1 diabetes mellitus; TC, total cholesterol. * Serious ACS events: status post-ACS with another vascular incident within the past 2 years; status post-ACS and multi-level atherosclerosis; status post-ACS and multivessel coronary artery disease. Super-regions, regions were defined according to NCD-RisC report [19].

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