

Dyslipidémie et prévention cardiovasculaire primaire

Guidelines Américaines 2019

Guidelines Européennes 2019

ACC/AHA VS ESC 2019



European Heart Journal (2019) 00, 1–78
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ESC/EAS GUIDELINES



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

**The Task Force for the management of dyslipidaemias of the
European Society of Cardiology (ESC) and European
Atherosclerosis Society (EAS)**

The NEW ENGLAND JOURNAL of MEDICINE

REVIEW ARTICLE

John A. Jarcho, M.D., *Editor*

**Lipid Management for the Prevention
of Atherosclerotic Cardiovascular Disease**

Erin D. Michos, M.D., M.H.S., John W. McEvoy, M.B., B.Ch., M.H.S.,
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REVIEW ARTICLE

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2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: Executive Summary

Endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation, the American Geriatric Society, the American Society of Preventive Cardiology, and the Preventive Cardiovascular Nurses Association

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2018 Guideline on the Management of Blood Cholesterol

Derived From:

Grundy SM, Stone NJ, Bailey AL, Beam C, Borch-Johnsen K, Braaten RJ, Braun LT, de Zeeuw D, de Zeeuw D, Eckel R, et al. 2018 AHA/ACC/AHA/ASPC/LPI/WPC/AGS/APA/AHA/ABP/JL/BSA/ACC/AHA/PCNA/AHA/PCNA/AHA/PCNA guideline on the management of blood cholesterol: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation*. 2018 Nov 19. doi: 10.1161/CIRC.119.10.1082

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Full text guidelines available in both *Circulation* and *JACC*.

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Primary Prevention of Cardiovascular Disease

ACC/AHA 2019 Guideline Update

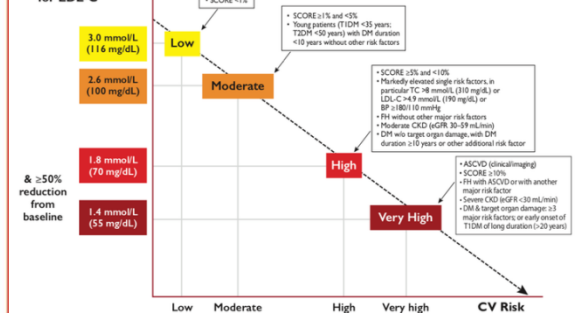
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ESC/EAS Guidelines on management of dyslipidaemias 2019



Treatment goal for LDL-C



ESC European Society of Cardiology
European Heart Journal (2019) 40, 1-78
2019 ESC/EAS Guidelines for the management of dyslipidaemias of cardiovascular risk
The Task Force for the management of dyslipidaemias of the European Society of Cardiology (ESC) and European Atherosclerosis Society (EAS)
ESC European Society
ESC/EAS GUIDELINES

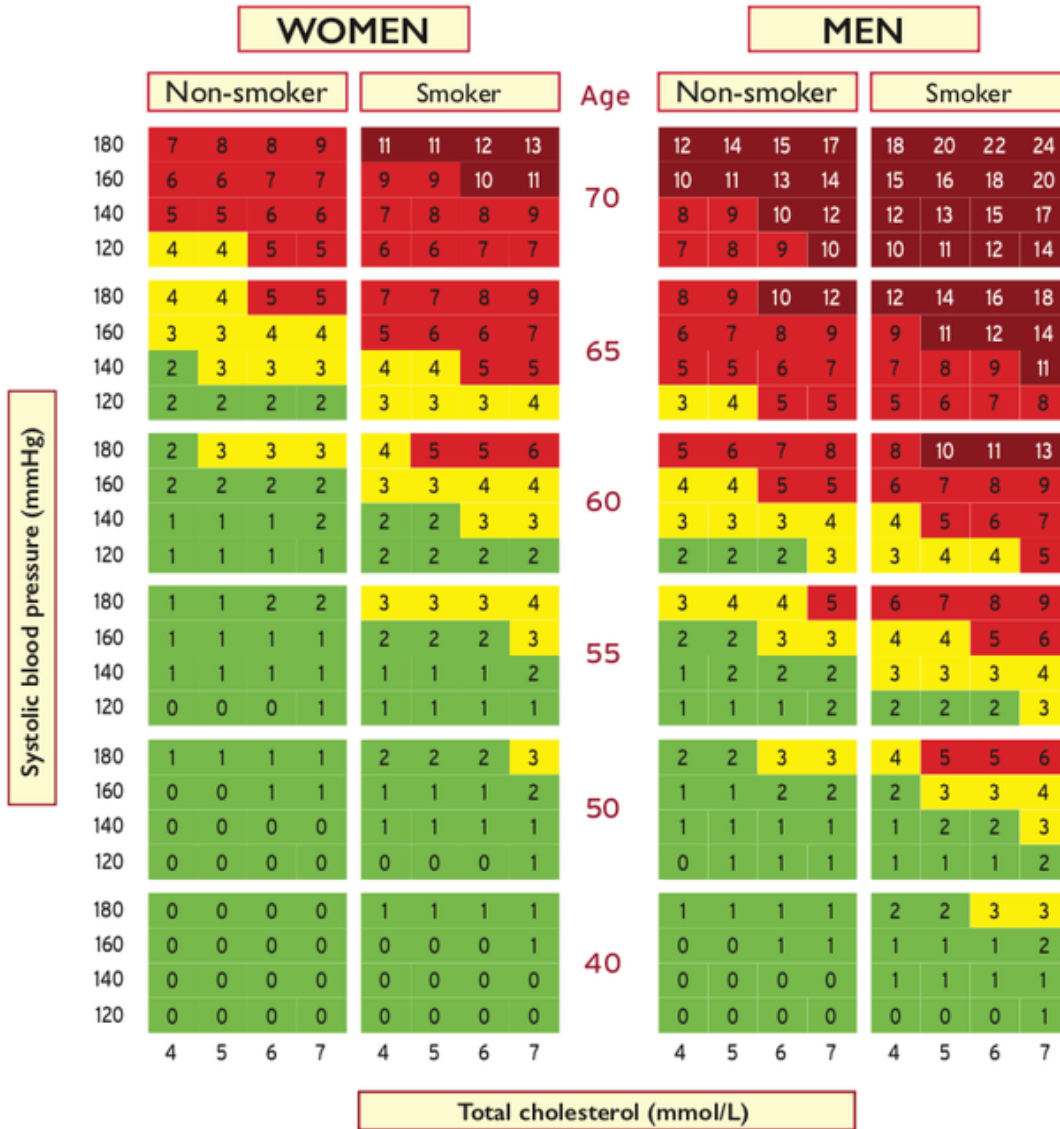
Evaluation du risque cardiovasculaire

- L'évaluation initiale du niveau de risque cardiovasculaire constitue le préalable indispensable à la **PEC** du risque **lipidique**.
- **Le risque CV total** est évalué par le diagramme:
- **SCORE** \leftrightarrow **ESC**
- **ASCVD** \leftrightarrow **USA**

SCORE Cardiovascular Risk Chart

10-year risk of fatal CVD

Low-risk regions of Europe



Total cholesterol (mmol/L)

■ <3%
 ■ 3-4%
 ■ 5-9%
 ■ ≥10%

**Primary Prevention:
Assess ASCVD Risk in Each Age Group
Emphasize Adherence to Healthy Lifestyle**

Age 0-19 y
Lifestyle to prevent or reduce ASCVD risk
Diagnosis of Familial Hypercholesterolemia → statin

Age 20-39 y
Estimate lifetime risk to encourage lifestyle to reduce ASCVD risk
Consider statin if family history premature ASCVD and LDL-C ≥160 mg/dL (≥4.1 mmol/L)

Age 40-75 y and LDL-C ≥70- <190 mg/dL (≥1.8- <4.9 mmol/L) without diabetes mellitus
10-year ASCVD risk percent begins risk discussion

LDL-C ≥190 mg/dL (≥4.9 mmol/L)
No risk assessment; High-intensity statin (Class I)

Diabetes mellitus and age 40-75 y
Moderate-intensity statin (Class I)

Diabetes mellitus and age 40-75 y
Risk assessment to consider high-intensity statin (Class IIa)

Age >75 y
Clinical assessment, Risk discussion

ASCVD Risk Enhancers:

- Family history of premature ASCVD
- Persistently elevated LDL-C ≥160 mg/dL (≥4.1 mmol/L)
- Chronic kidney disease
- Metabolic syndrome
- Conditions specific to women (e.g., preeclampsia, premature menopause)
- Inflammatory diseases (especially rheumatoid arthritis, psoriasis, HIV)
- Ethnicity (e.g., South Asian ancestry)

Lipid/Biomarkers:

- Persistently elevated triglycerides (≥175 mg/dL, (≥2.0 mmol/L))

In selected individuals if measured:

- hs-CRP ≥2.0 mg/L
- Lp(a) levels >50 mg/dL or >125 nmol/L
- apoB ≥130 mg/dL
- Ankle-brachial index (ABI) <0.9

<5%
"Low Risk"

5% - <7.5%
"Borderline Risk"

≥7.5% - <20%
"Intermediate Risk"

≥20%
"High Risk"

Risk discussion:
Emphasize lifestyle to reduce risk factors (Class I)

Risk discussion:
If risk enhancers present then risk discussion regarding moderate-intensity statin therapy (Class IIb)

Risk discussion:
If risk estimate + risk enhancers favor statin, initiate moderate-intensity statin to reduce LDL-C by 30% - 49% (Class I)

Risk discussion:
Initiate statin to reduce LDL-C ≥50% (Class I)

If risk decision is uncertain:
Consider measuring CAC in selected adults:
CAC = zero (lowers risk; consider no statin, unless diabetes, family history of premature CHD, or cigarette smoking are present)
CAC = 1-99 favors statin (especially after age 55)
CAC = 100+ and/or ≥75th percentile, initiate statin therapy

Objectifs thérapeutiques:

L'ESC 2019 recommande:

- Arrêt du **tabac** / Alimentation **saine** et équilibrée
- Activité physique de **30-60 min/j**
- IMC entre **20-25Kg/m²** TT **<94/80cm** H/F
- **PA <140/90mmHg** / HbA1c **< 7%** TG **< 1.5g/l**

- **LDLc: (Classe I niveau A)**
 - < 0.55g/l** chez les patients à **très haut risque**
 - < 0.7 g/l** chez les patients à **haut risque**
 - < 1 g/l** chez les patients à **risque modérée**
 - < 1.16 g/l** chez les patients à **bas risque**

ACC/AHA 2019!

- Les **statines** sont un traitement de **première intention** en prévention **primaire** des MCVA
 - **LDLc ($\geq 1,90$ g / l)** quel que soit l'âge,
 - Chez les patients âgés de **40 à 75 ans**, présentant un **diabète**

Quels traitement?

- Sous **Statine** on observe, pour chaque baisse de **1mM de LDLc**, une réduction:
 - Des évènements **CV majeurs** de 22%
 - Des évènements **coronariens** de 23%
 - Des **décès CV** de 20%
 - Des **AVC** de 17%
 - Et de la **mortalité totale** de 10% sur 5ans.
- L'utilisation de **Statines** de forte intensité est recommandée jusqu'à dose maximale tolérée (**Classe I niveau A**) et elles sont recommandées en première intention dans les **hypertriglycéridémies (Classe I niveau B)**

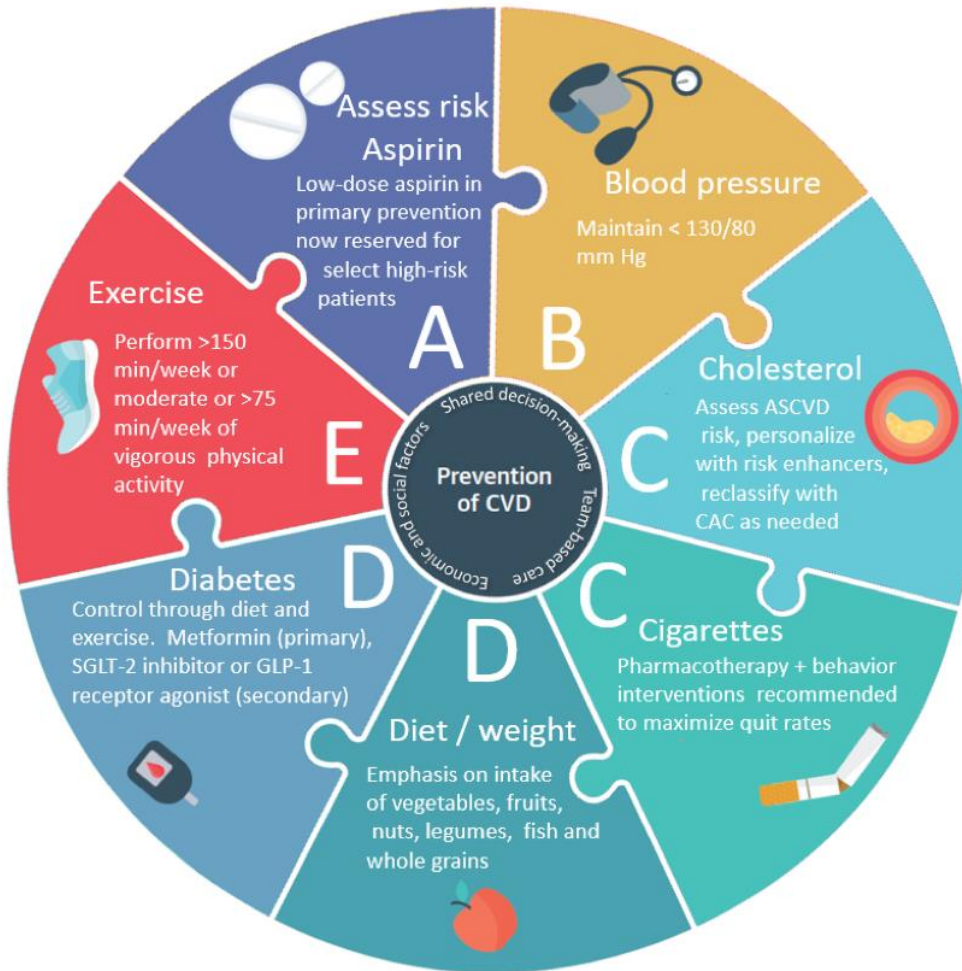
- **L'ézitimibe** est utilisé en seconde ligne en association avec les statines si l'objectif **n'est pas atteint** (**Classe I niveau B**) ou en cas d'intolérance à ces dernières.
- **Les inhibiteurs des PCSK9** il sont indiqués en **prévention secondaire** en cas de **non atteinte** des objectifs de LDLc avec Statines et Ezitimibe (**Classe I**)
- **Cas particuliers:**
- → **SCA: Statine** à forte dose, peu importe le niveau du LDLc de base (Classe I niveau A), en l'absence d'atteinte de l'objectif 4 à 6 semaines après, il est nécessaire d'introduire **l'ézitimibe** (Classe I B) et 4 à 6 Semaines plus tard si pas d'atteinte de l'objectif de LDLc, un **inhibiteur de PCSK9** doit être introduit (Classe I niveau B)

2016	2019
<p>Lipid analyses for CVD risk estimation</p> <p>ApoB should be considered as an alternative risk marker whenever available, especially in individuals with high TG.</p>	<p>Lipid analyses for CVD risk estimation</p> <p>ApoB analysis is recommended for risk assessment, particularly in people with high TG, DM, obesity or metabolic syndrome, or very low LDL-C. It can be used as an alternative to LDL-C, if available, as the primary measurement for screening, diagnosis, and management, and may be preferred over non-HDL-C in people with high TG, DM, obesity, or very low LDL-C.</p>
<p>Pharmacological LDL-C lowering</p>	<p>Pharmacological LDL-C lowering</p>
<p>If the LDL goal is not reached, statin combination with a cholesterol absorption inhibitor should be considered.</p>	<p>If the goals are not achieved with the maximum tolerated dose of statin, combination with ezetimibe is recommended.</p>
<p>Pharmacological LDL-C lowering</p> <p>In patients at very-high risk, with persistent high LDL-C despite treatment with maximal tolerated statin dose, in combination with ezetimibe or in patients with statin intolerance, a PCSK9 inhibitor may be considered.</p>	<p>Pharmacological LDL-C lowering</p> <p>For secondary prevention, patients at very-high risk not achieving their goal on a maximum tolerated dose of statin and ezetimibe, a combination with a PCSK9 inhibitor is recommended.</p> <p>For very-high-risk FH patients (that is, with ASCVD or with another major risk factor) who do not achieve their goals on a maximum tolerated dose of statin and ezetimibe, a combination with a PCSK9 inhibitor is recommended.</p>

Drug treatments of hypertriglyceridaemia	Drug treatments of hypertriglyceridaemia		
Statin treatment may be considered as the first drug of choice for reducing CVD risk in high-risk individuals with hypertriglyceridaemia.	Statin treatment is recommended as the first drug of choice for reducing CVD risk in high-risk individuals with hypertriglyceridaemia [TG >2.3 mmol/L (200 mg/dL)].		
Treatment of patients with heterozygous FH	Treatment of patients with heterozygous FH		
Treatment should be considered to aim at reaching an LDL-C <2.6 mmol/L (<100 mg/dL) or in the presence of CVD <1.8 mmol/L (<70 mg/dL). If targets cannot be reached, maximal reduction of LDL-C should be considered using appropriate drug combinations.	For FH patients with ASCVD who are at very-high risk, treatment to achieve at least a 50% reduction from baseline and an LDL-C <1.4 mmol/L (<55 mg/dL) is recommended. If goals cannot be achieved, a drug combination is recommended.		
Treatment of patients with heterozygous FH	Treatment of patients with heterozygous FH		
Treatment with a PCSK9 antibody should be considered in FH patients with CVD or with other factors putting them at very-high risk for CHD, such as other CV risk factors, family history, high Lp(a), or statin intolerance.	Treatment with a PCSK9 inhibitor is recommended in very-high-risk FH patients if the treatment goal is not achieved on maximal tolerated statin plus ezetimibe.		
Treatment of dyslipidaemias in older adults	Treatment of dyslipidaemias in older people		
Since older people often have comorbidities and have altered pharmacokinetics, lipid-lowering medication should be started at a lower dose and then titrated with caution to achieve target lipid levels that are the same as in younger people.	It is recommended that the statin is started at a low dose if there is significant renal impairment and/or the potential for drug interactions, and then titrated upwards to achieve LDL-C treatment goals.		
Lipid-lowering therapy in patients with ACS	Lipid-lowering therapy in patients with ACS		
If the LDL-C target is not reached with the highest tolerated 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 contraindicated.	If the LDL-C goal is not achieved after 4 - 6 weeks despite maximal tolerated statin therapy and ezetimibe, addition of a PCSK9 inhibitor is recommended.		
Recommendation grading			
Class I	Class IIa	Class IIb	Class III

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Figure 1. ABCDE of Primary Prevention: Lifestyle Changes and Team-Based Care



Promote a Healthy Lifestyle

Share Decision Making with the Patient

- Measure risk factors
- Evaluate the patient's risk of ASCVD

Determine Candidates for Pharmacotherapy

Statins remain first line

Clinical ASCVD

- Reduce LDL cholesterol level by $\geq 50\%$ with high-intensity statin (or maximum dose tolerated without side effects)
- Consider nonstatin therapy in patients at very high risk (LDL cholesterol threshold of ≥ 70 mg/dl while receiving maximum dose tolerated)

Severely elevated LDL cholesterol (≥ 190 mg/dl)

- Prescribe high-intensity statin (up to highest tolerated dose)
- Consider addition of nonstatin if needed (LDL cholesterol remains ≥ 100 mg/dl in patient with risk factors)

Diabetes

- Prescribe moderate-intensity statin
- Consider reducing LDL cholesterol level by $\geq 50\%$ in patients at high risk

10-yr risk of ASCVD $\geq 7.5\%$

- Prescribe moderate-intensity statin if discussion favors therapy after consideration of risk-enhancing factors, coronary artery calcium, or both
- Reduce LDL cholesterol level by $\geq 30\%$ (or $\geq 50\%$ if 10-yr risk $\geq 20\%$)

Adopt a Personalized Approach

- Consider additional factors that increase risk
- If level of risk is uncertain, consider coronary-artery calcium test

Monitor Response to Treatment and Lifestyle

Take Home Message

Figure 1. ABCDE of Primary Prevention: Lifestyle Changes and Team-Based Care



Merci pour votre attention