ESC SPRING SUMMIT 2024

Prevention regains the forefront of the CVD agenda

What do the ESC Prevention guidelines say?

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2021 ESC Guidelines on cardiovascular disease prevention in clinical practice

Developed by the Task Force for cardiovascular disease prevention in clinical practice with representatives of the European Society of Cardiology and 12 medical societies

With the special contribution of the European Association of Preventive Cardiology (EAPC)

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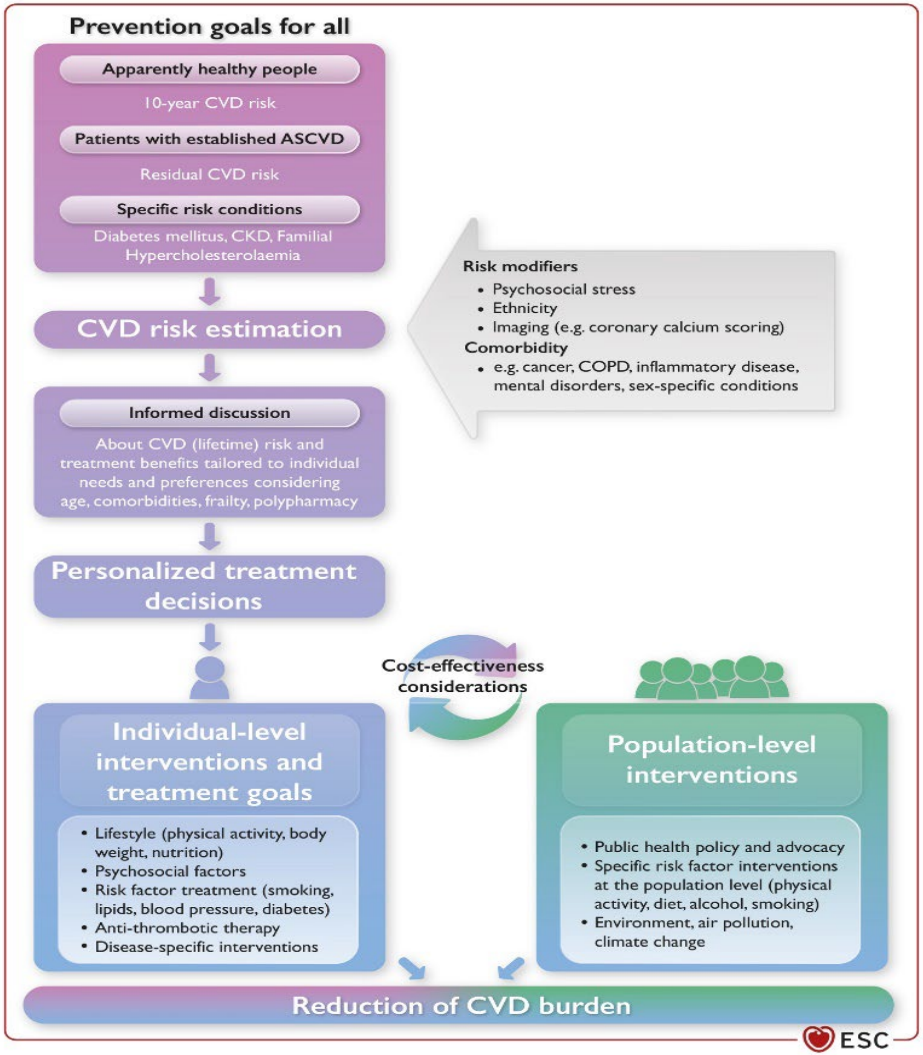
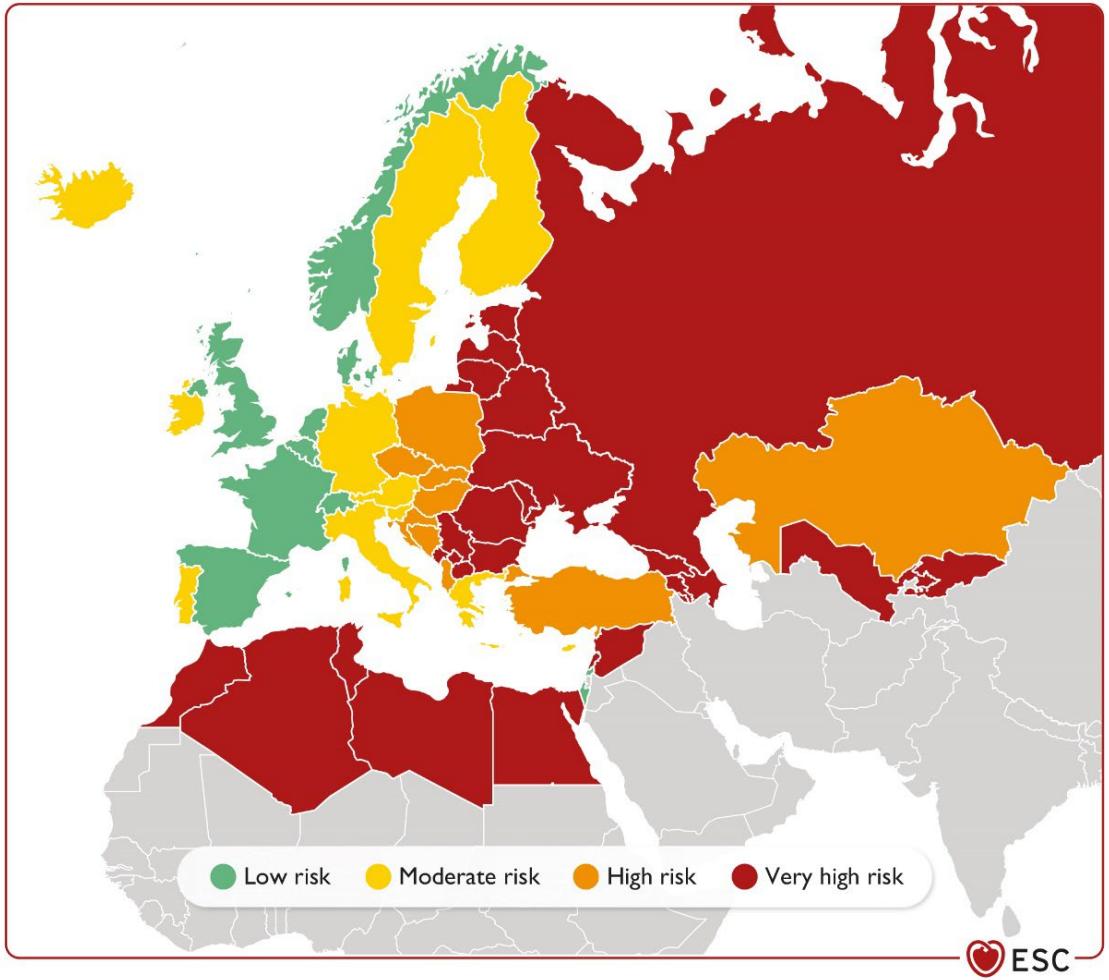
What is new in the 2021 CVD Prevention Guidelines?

- Stepwise approach to individualized CVD prevention
- SCORE2 and SCORE2-OP for 4 geographic regions
- Age-specific risk thresholds in apparently healthy persons
- Estimation of lifetime CVD risk and treatment benefit
- Shared decision making by taking patient specific conditions, patient preferences, (lifetime) risk and treatment benefit into account
- Signalling potential cost issues



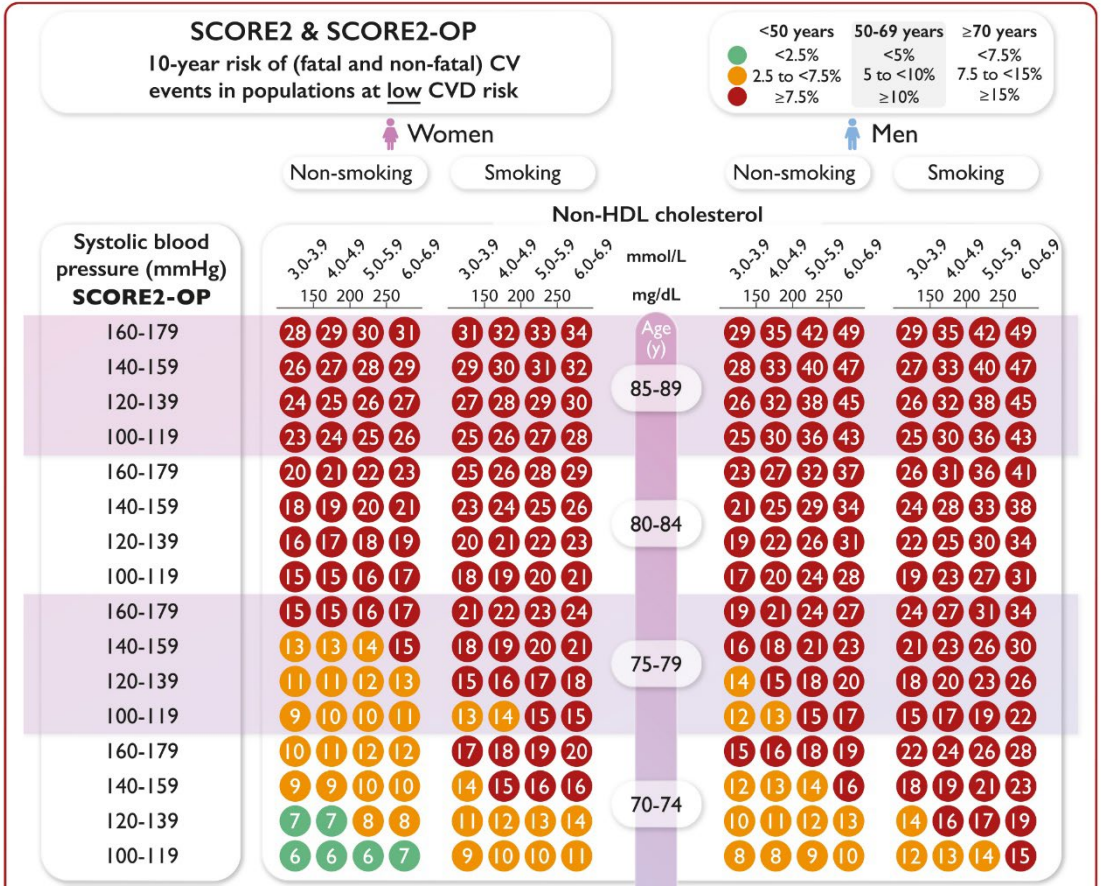
Prevention of CVD

Visseren FLJ, et al. Eur Heart J. 2021;42:3227-337



Risk regions based on World Health Organization CV mortality rates

Visseren FLJ, et al. Eur Heart J. 2021;42:3227-337



SCORE2 and SCORE2-OP risk chart for fatal and non-fatal (MI, stroke) ASCVD

Low CVD Risk (1)

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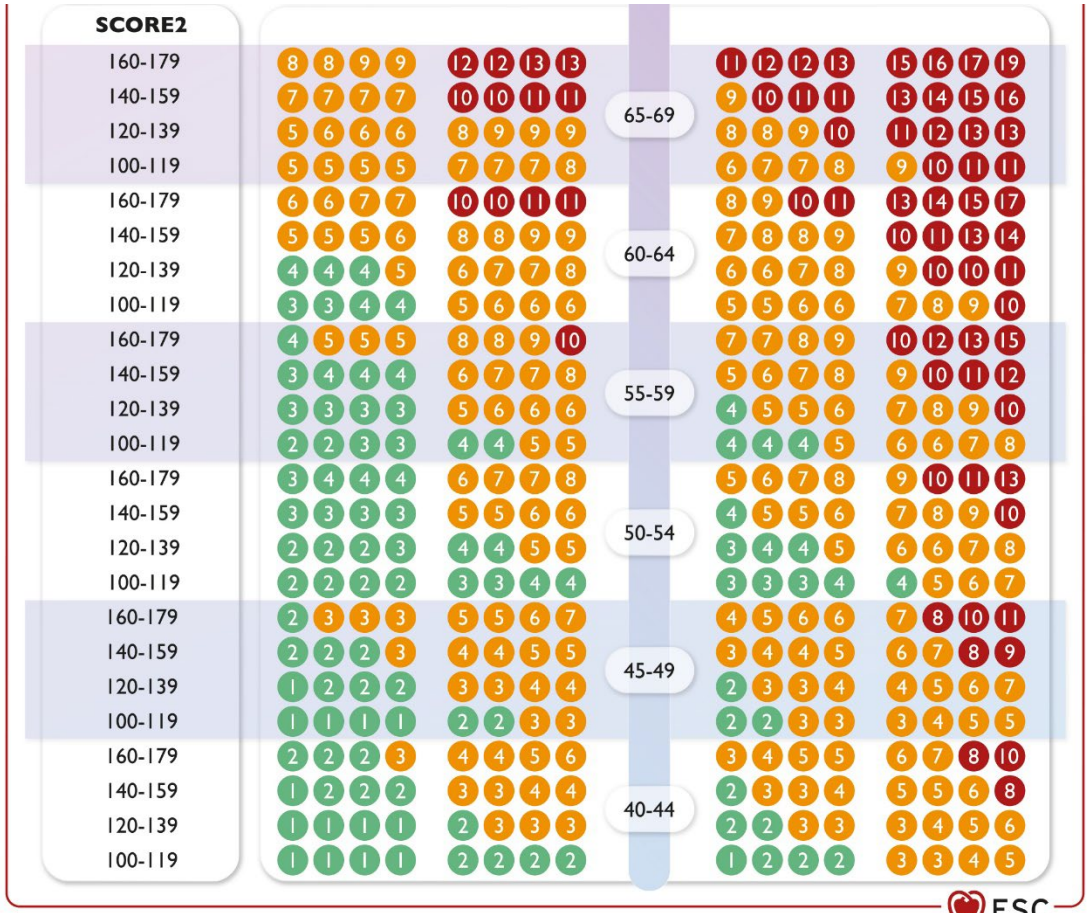

SCORE2 and SCORE2-OP risk chart for fatal and non-fatal (MI, stroke) ASCVD

Low CVD Risk (2)

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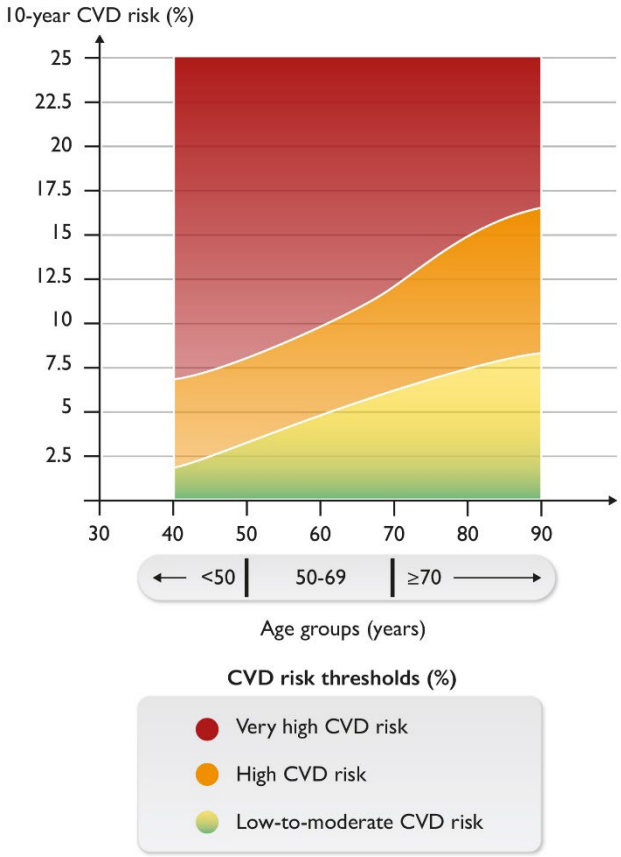

Schematic representation of increasing 10-year CVD risk thresholds across age groups

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CVD risk categories based on SCORE2 and SCORE2-OP in apparently healthy people according to age

	<50 years	50-69 years	≥70 years[a]
Low-to-moderate CVD risk: risk factor treatment generally not recommended	<2.5%	<5%	<7.5%
High CVD risk: risk factor treatment should be considered	2.5 to <7.5%	5 to <10%	7.5 to <15%
Very high CVD risk: risk factor treatment generally recommended[a]	≥7.5%	≥10%	≥15%

- The cut-off risk levels for risk categories are numerically different for various age groups to **avoid undertreatment in the young** and to **avoid overtreatment in older persons**.
- As age is a major driver of CVD risk, but **lifelong risk factor treatment benefit is higher in younger people**, the **risk thresholds for considering treatment are lower for younger people**

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Recommendation for CVD risk communication

Recommendation	Class[a]	Level[b]
An informed discussion about CVD risk and treatment benefits tailored to the needs of a patient is recommended.[96]	I	C

- Reducing CVD risk at the individual level begins with **appropriate assessment of individual risk** and **effective communication** of risk and anticipated risk reduction by risk factor treatment.

- **Risk perception:** It is important to ensure that patients understand their risk, the anticipated risk reduction, and the pros and cons of intervention, and to identify what is important to them.

Treatment of risk factors in primary prevention

Recommendations	Class
Treatment of ASCVD risk factors is recommended in **apparently healthy people** without DM, CKD, genetic/rarer lipid or BP disorders who are at **very high CVD risk** (SCORE2 ≥7.5% for age under 50; SCORE2 ≥10% for age 50—69; SCORE2-OP ≥15% for age ≥70).	I
Treatment of ASCVD risk factors should be considered in **apparently healthy people** without DM, CKD, genetic/rarer lipid, or BP disorders who are at **high CVD risk** (SCORE2 2.5 to <7.5% for age under 50; SCORE2 5 to <10% for age 50—69; SCORE2-OP 7.5 to <15% for age ≥70 years), taking ASCVD risk modifiers, lifetime risk and treatment benefit, and patient preferences into account.	IIa

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Treatment of risk factors in relation to total CVD risk

- The **intensity of treatment** should increase with increasing CVD risk.
- **No lower threshold** of total CVD risk precludes treatment of risk factors.
- Conversely, **no high threshold** for total CVD risk implies ‘mandatory’ treatment

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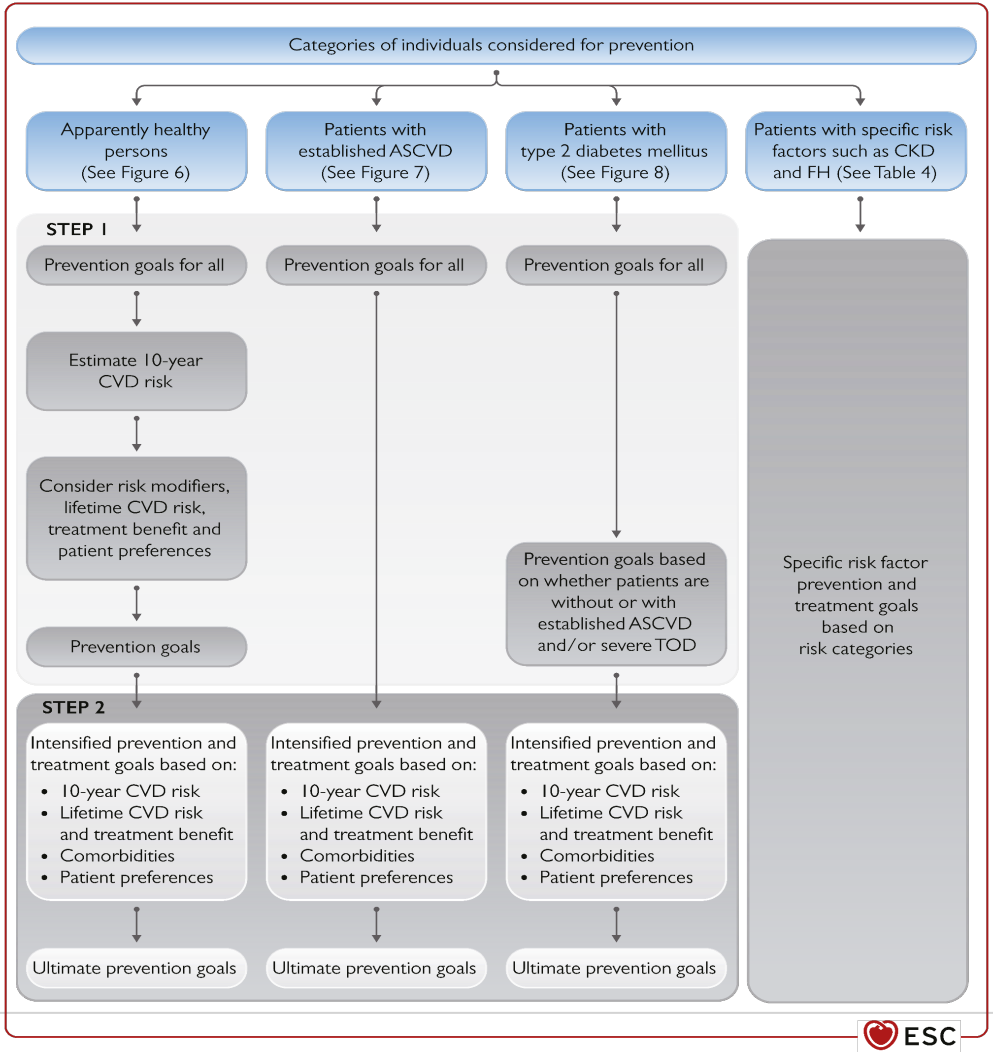
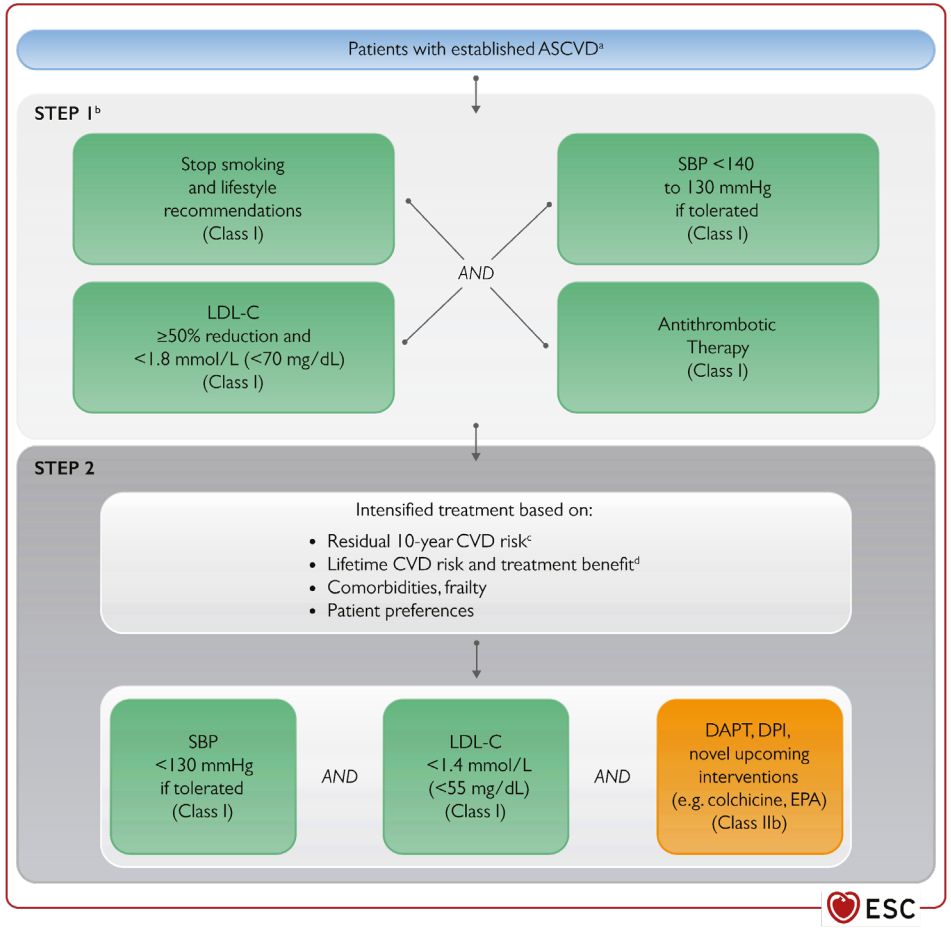


Stepwise approach to risk stratification and treatment options



Cardiovascular risk and risk factor treatment in patients with established CVD

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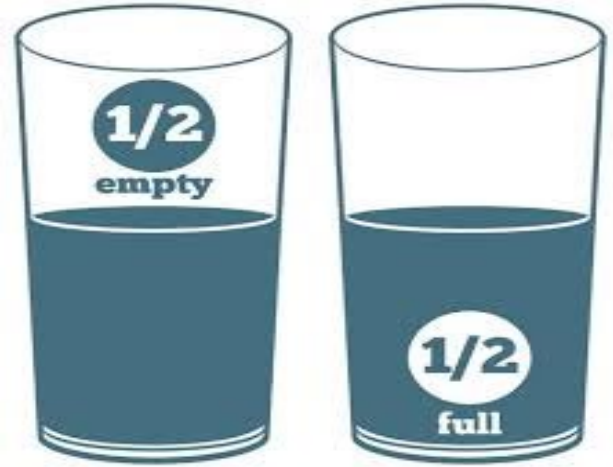
ESC Prevention guidelines:

Opportunities and Challenges



Opportunities

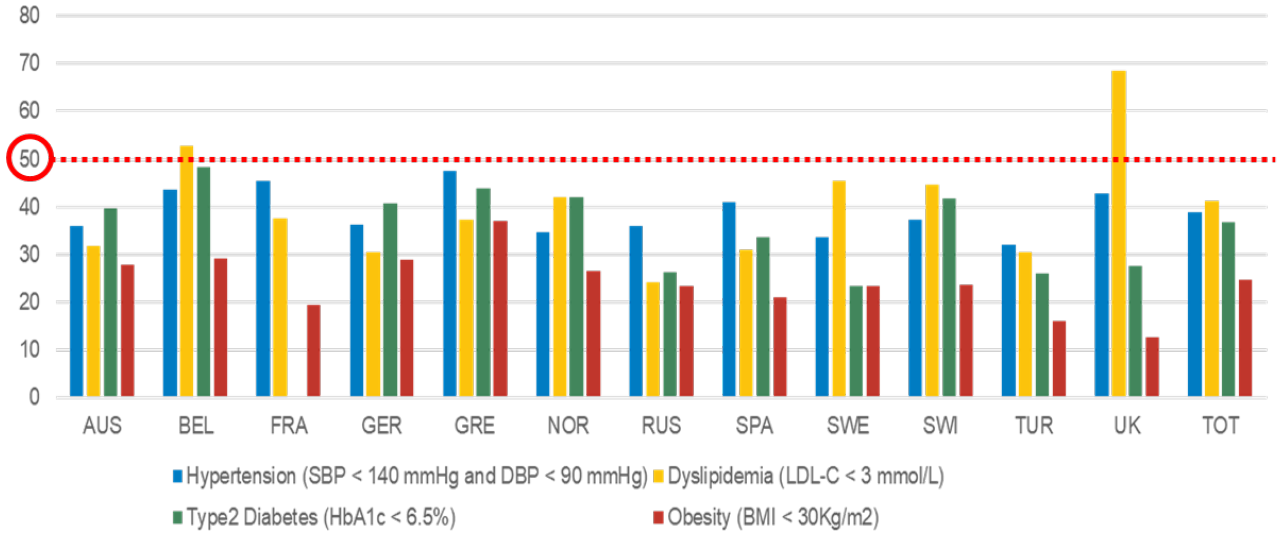
- More robust and better validated **tools for risk assessment**, including individuals who were previously not addressed (e.g. elderly)
- **Physician – patient communication** becomes cental in defining the preventive strategy for each patient
- **Shared decision-making -** No paternalistic approach
- No "**one size fits all**" concept: There is no single "correct " approach; rather, the individual's preferences and understanding are taken into account.
- Important steps towards **indivdualized management**

Challenges

- Further steps needed to move from crude risk assessment to in-depth phenotyping and **refined risk stratification**
- Beyond classical risk factors, integration of potential **risk modifiers** in risk assessment tools remains challenging
- Integration of the **voice of the patient** in every-day clinical practice
- Geographic and socioeconomic **disparities and inequalities**: profound differences in access to risk assessment and risk reduction strategies even within ESC member countries

Challenges

Despite major advances in risk assessment and management,
the **achievement of recommended treatment targets remains suboptimal**



Banegas JR et al. *Eur Heart J* 2011;32:2143-52

Challenges

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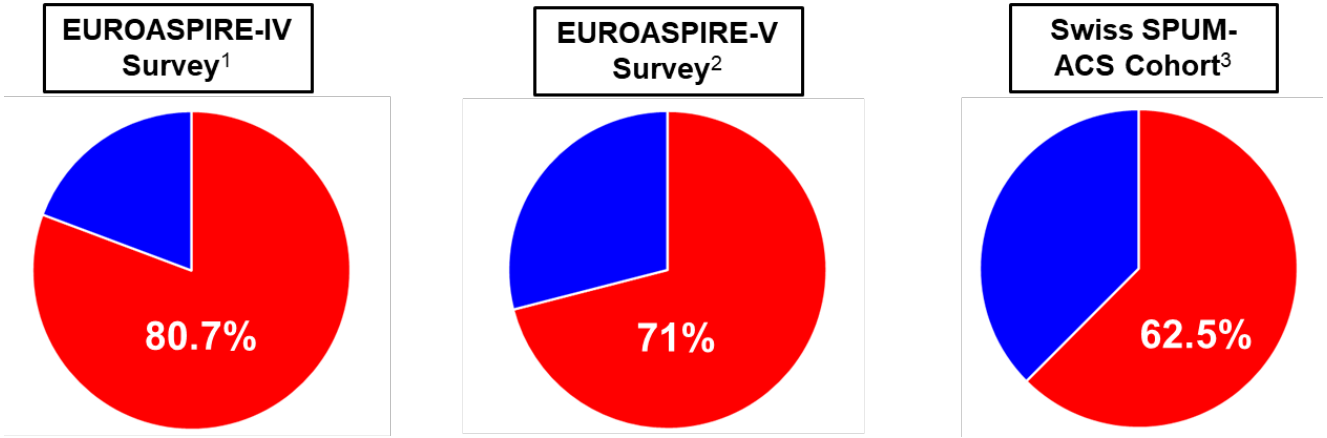
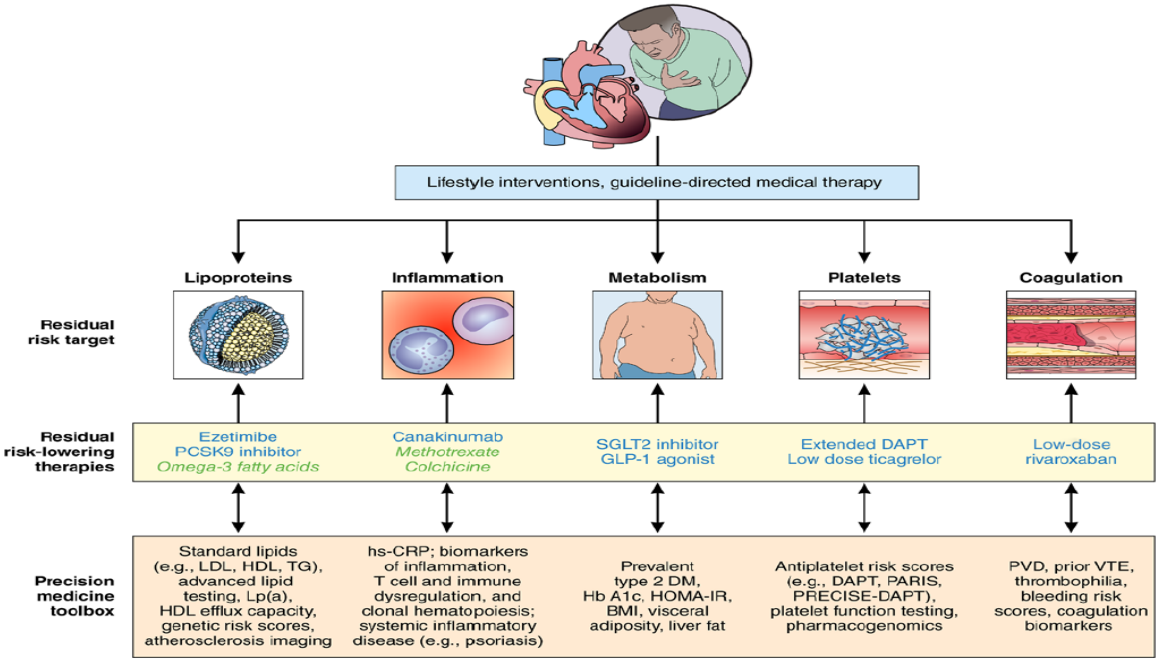


Proportion of patients with LDL-C >70 mg/dL after an MI / ACS event

1. Reiner Z, et al. *Atherosclerosis* 2016;246:243-50
2. De Backer G, et al. *Atherosclerosis* 2019;285:135-46.
3. Koskinas KC, et al. *Eur J Preventive Cardiology 2021;28(1):59-65*

Challenges

Addressing Multiple Aspects of Residual CV Rsik



Patel KV, et al. *Circulation* 2018;137:2551-3

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Thank you very much for your attention

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