



# Il controllo della colesterolemia nei soggetti a basso rischio cardiovascolare: caratterizzare il paziente e personalizzare gli interventi terapeutici

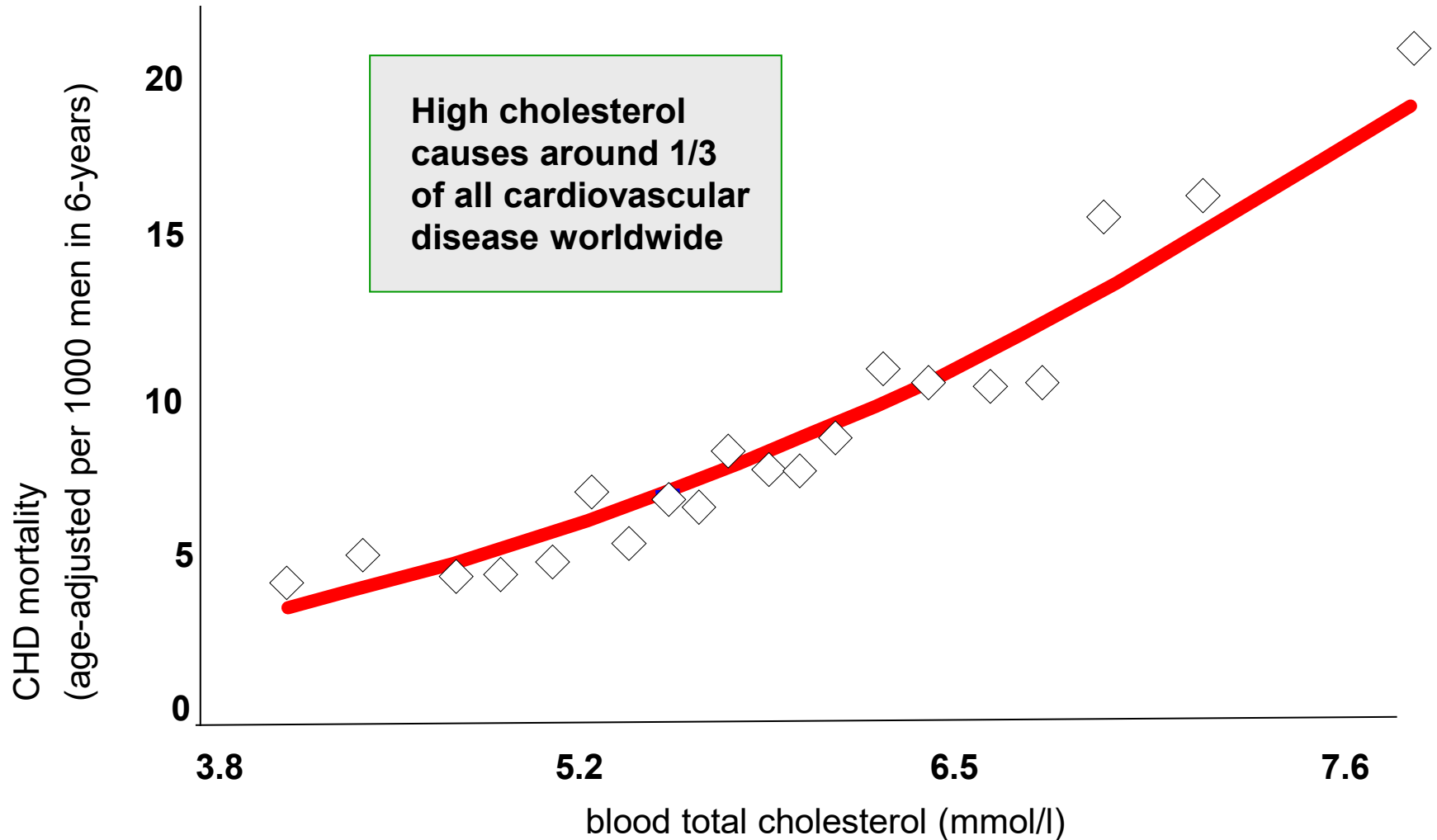


Andrea Poli

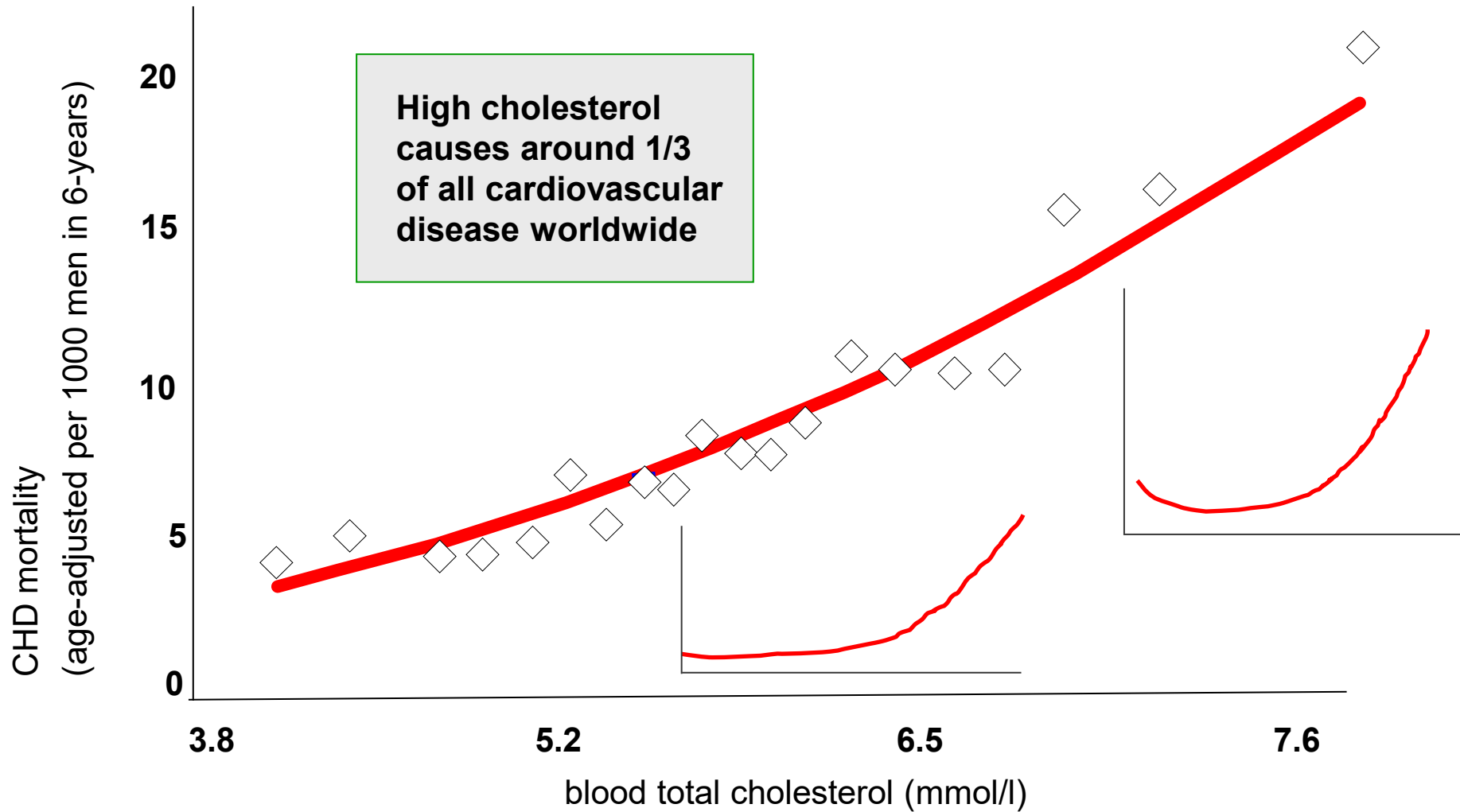
NFI – Nutrition Foundation of Italy Milano



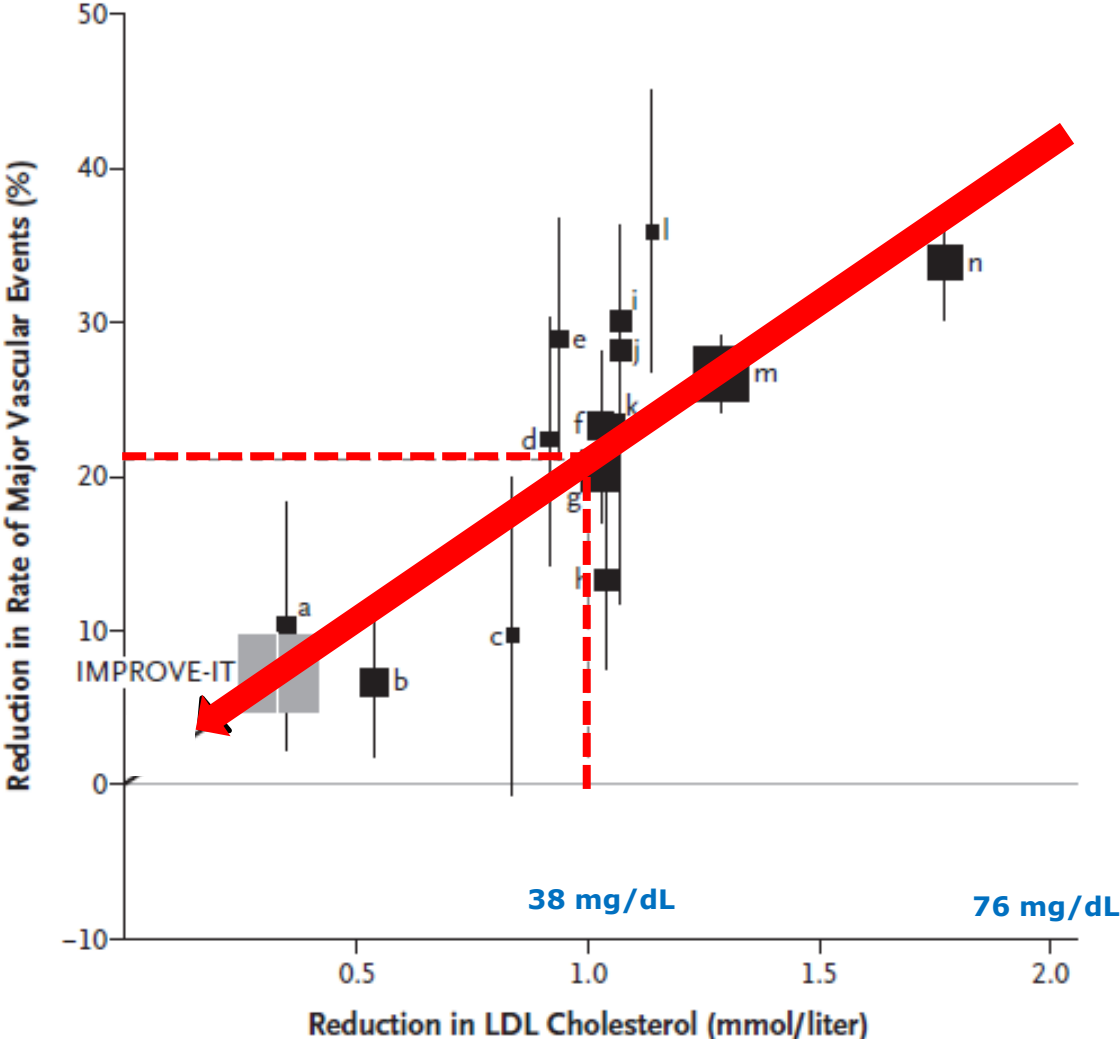
# Lower cholesterol levels are associated with lower risk for heart disease



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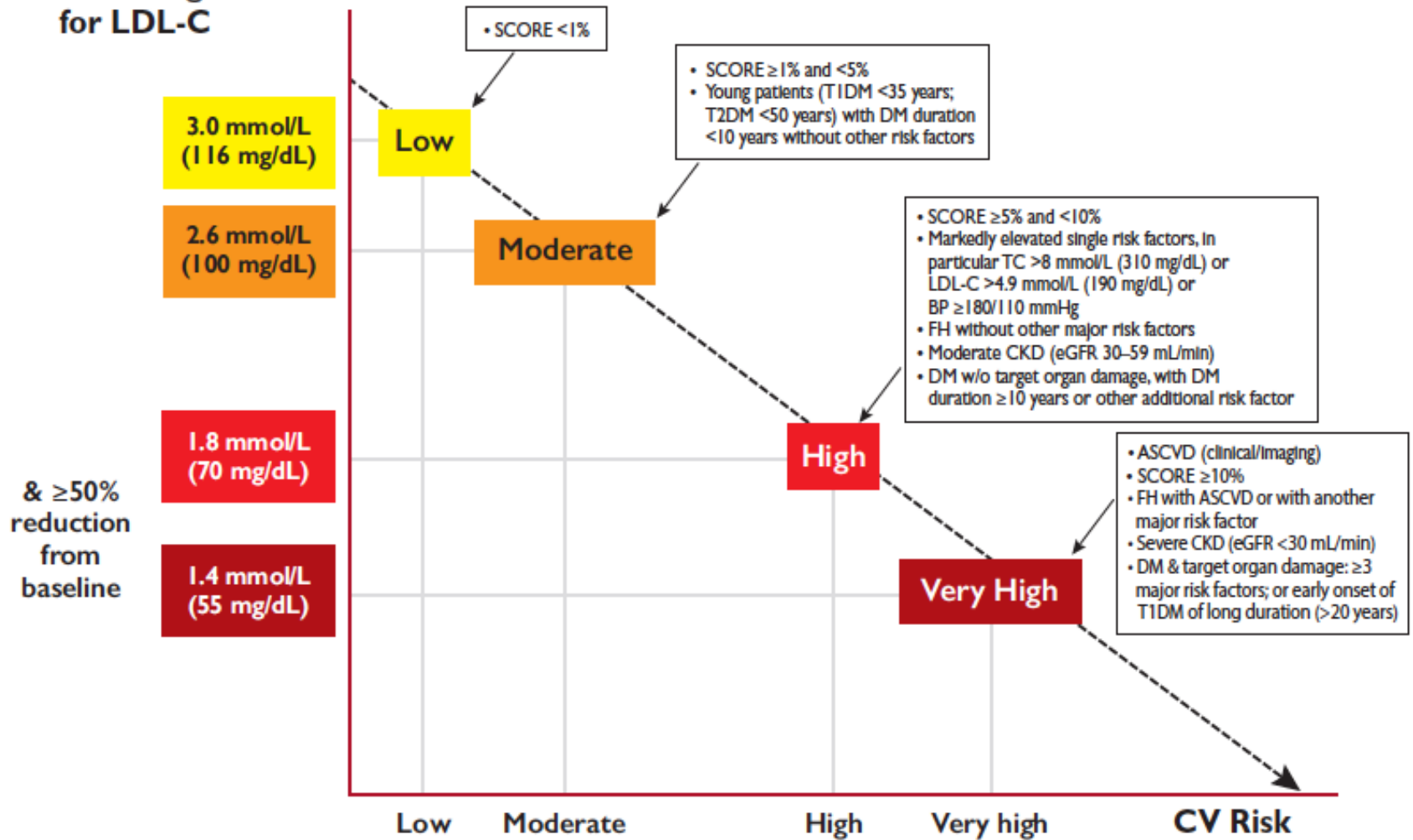


# Plot of the IMPROVE-IT Trial Data and Statin Trials for Change LDL-C vs Clinical Benefit



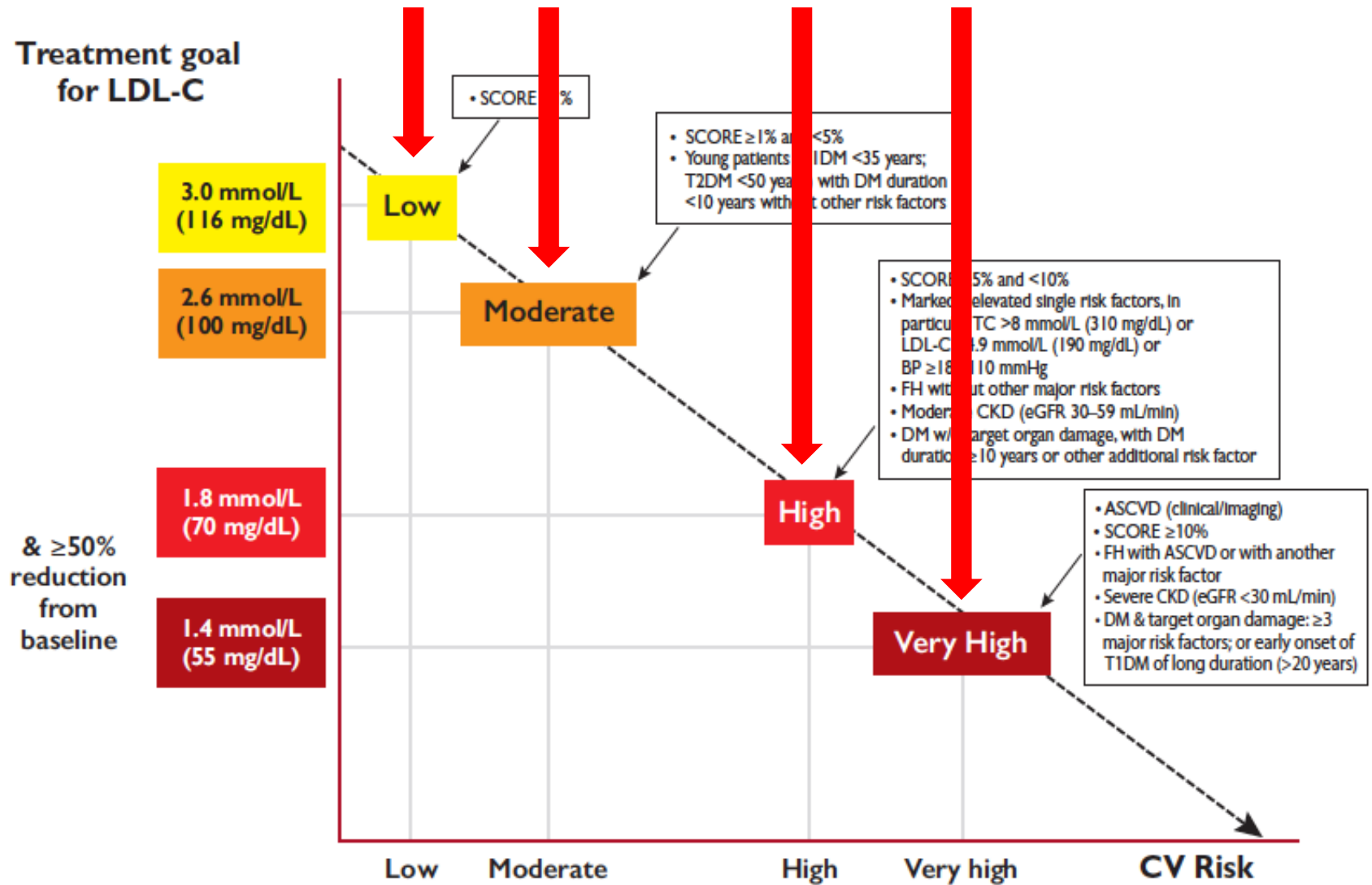
# 2019 ESC/EAS Guidelines for the management of dyslipidaemias

## B Treatment goal for LDL-C



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## B Treatment goal for LDL-C

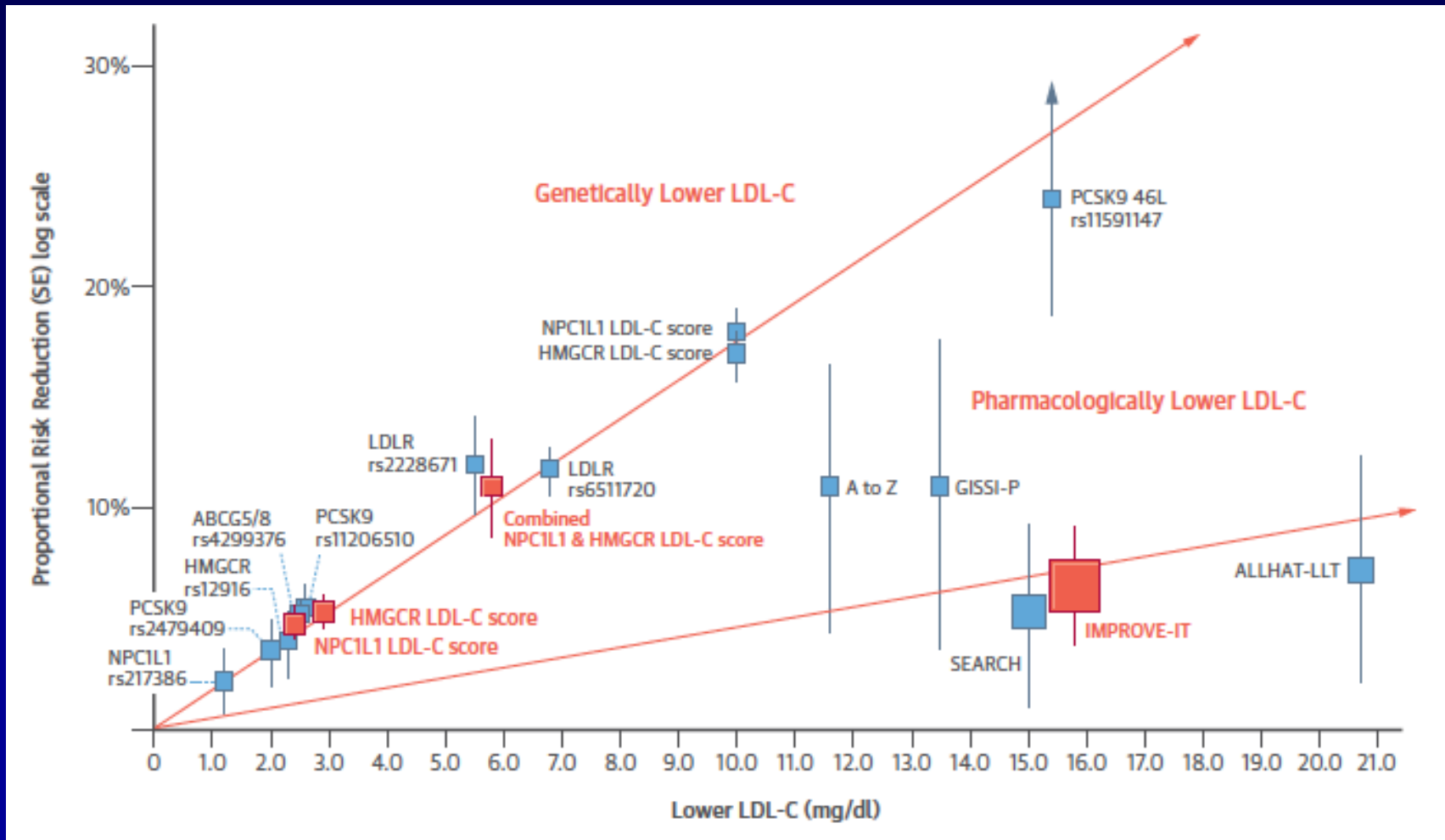


# Quindi:

- **quanto più in basso scendo, tanto meglio è (the lower, the better, oppure lowest is best)**
- **Devo naturalmente tenere conto del livello di rischio globale: il calo da ottenere sarà in media crescente al crescere del rischio**

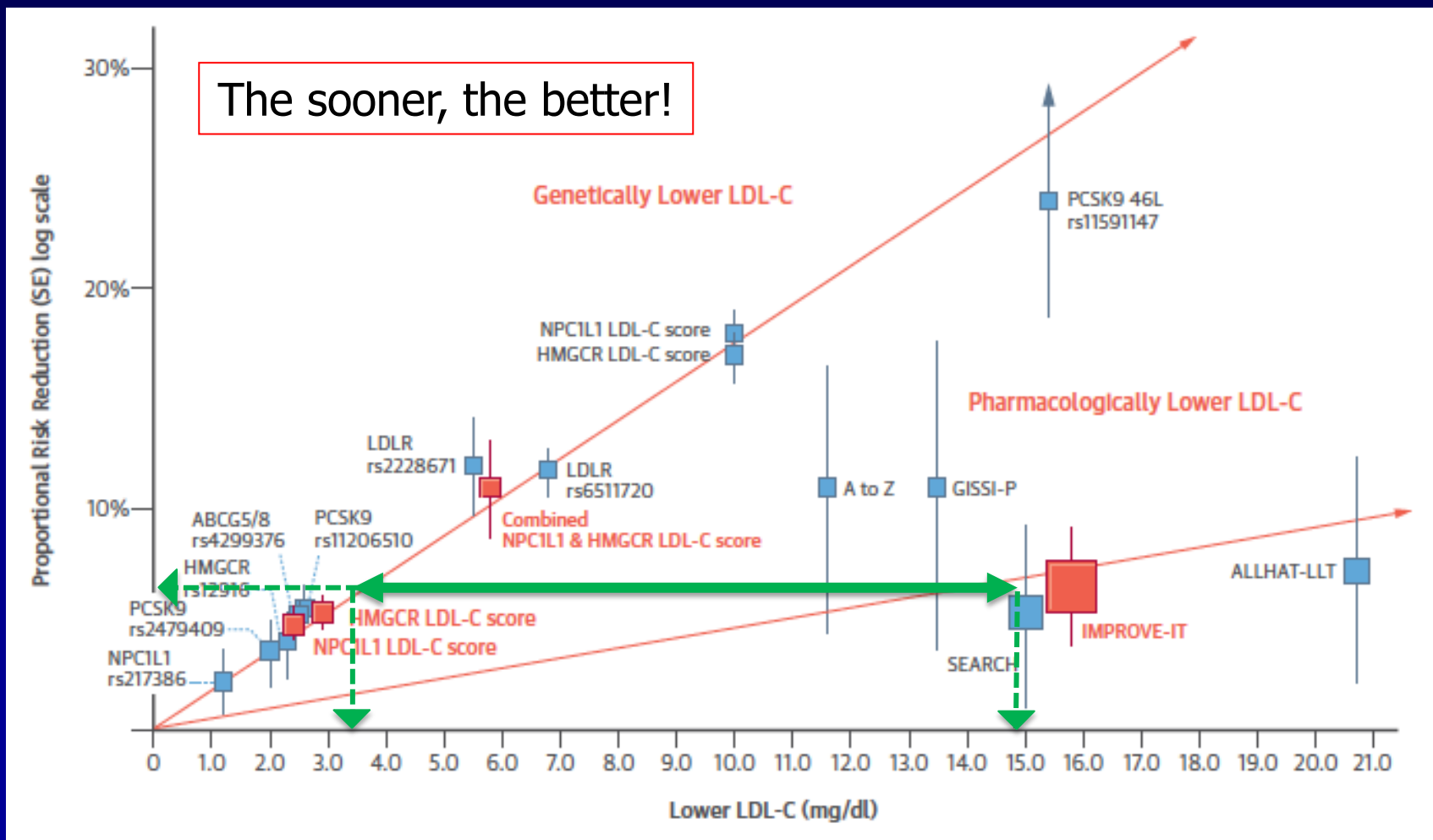
**Ma quando devo iniziare la terapia?**

# Effect of a genetically or pharmacologically mediated LDL-C reduction on CHD risk






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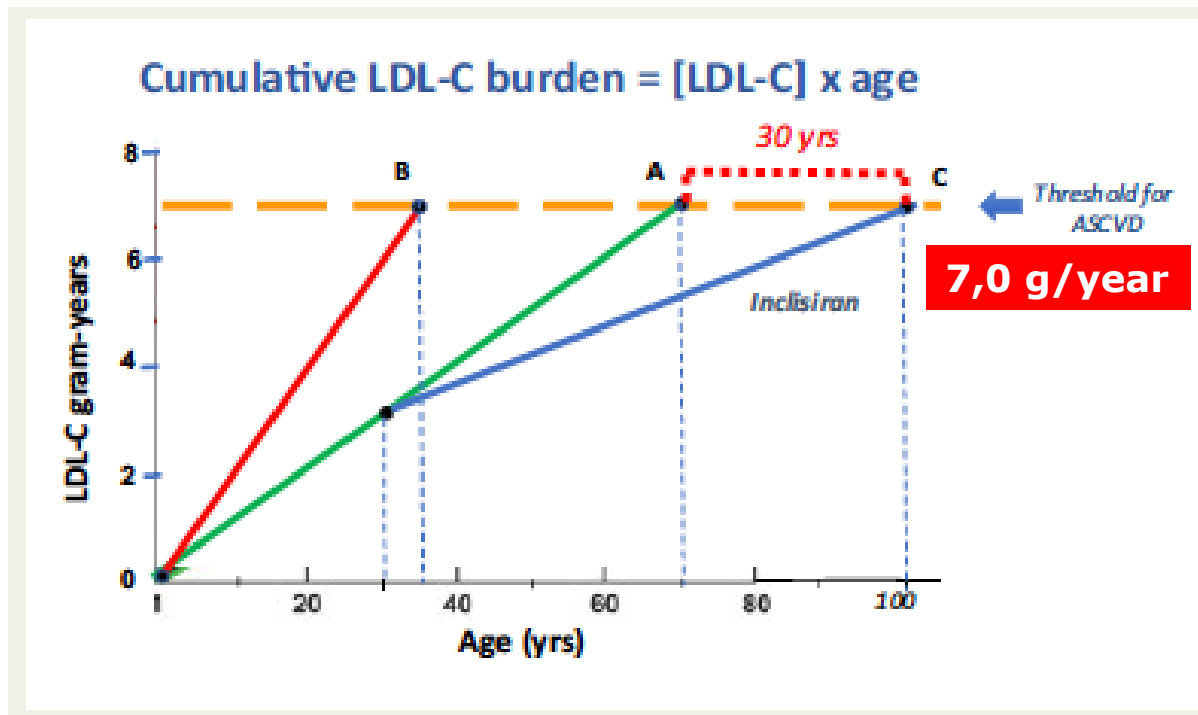


## Braunwald's Corner

# How to live to 100 before developing clinical coronary artery disease: a suggestion

Eugene Braunwald  1,2\*

<sup>1</sup>TIMI Study Group, Division of Cardiovascular Medicine, Brigham and Women's Hospital, Hale Building for Transformative Medicine, Suite 7022, 60 Fenwood Road, Boston, MA 02115, USA; and <sup>2</sup>Department of Medicine, Harvard Medical School, Boston, MA, USA



70 mg/dL: 100 yrs  
100 mg/dL: 70 yrs

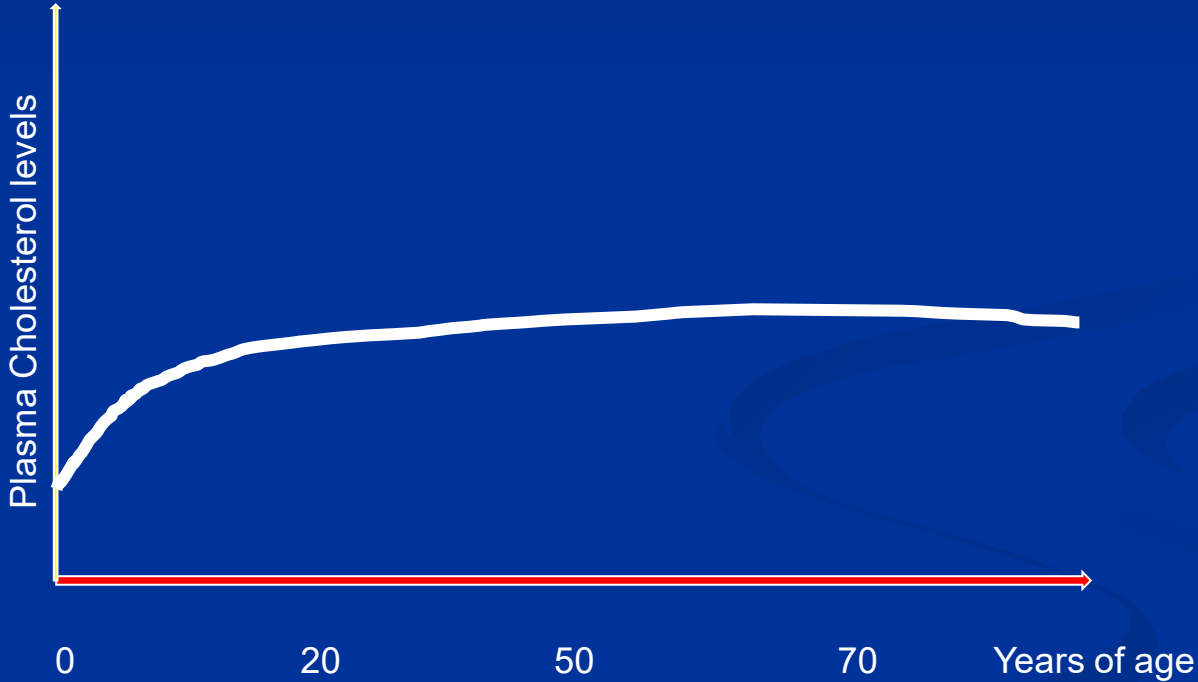
## **Quindi:**

**Se ho un LDL di 120 mg/dL a 40 anni, ho già «depositato» 4,8 g di colesterolo**

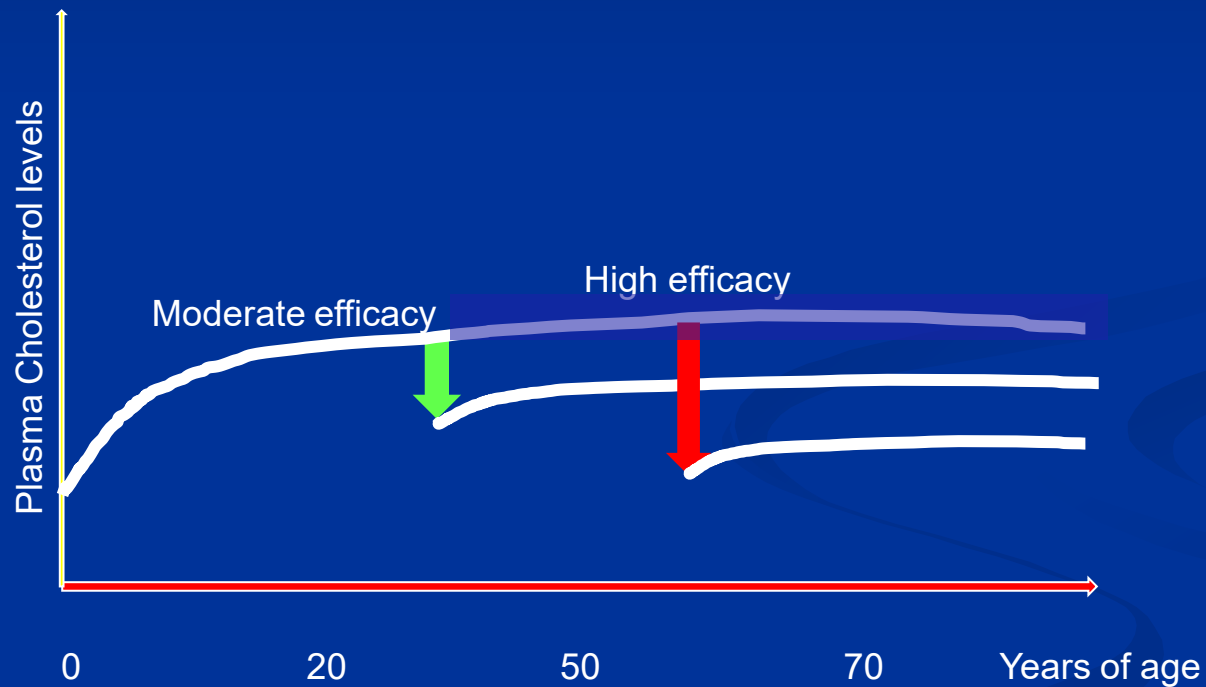
**Se continuo, successivamente, ad avere un LDL di 120 mg/dL, in circa 18 anni avrò depositato gli altri 2,2 g ed a 58 anni avrò bucato la soglia critica**

**Alcuni dati recenti spostano  
infatti l'attenzione sull'Area  
Sotto la Curva (AUC)**

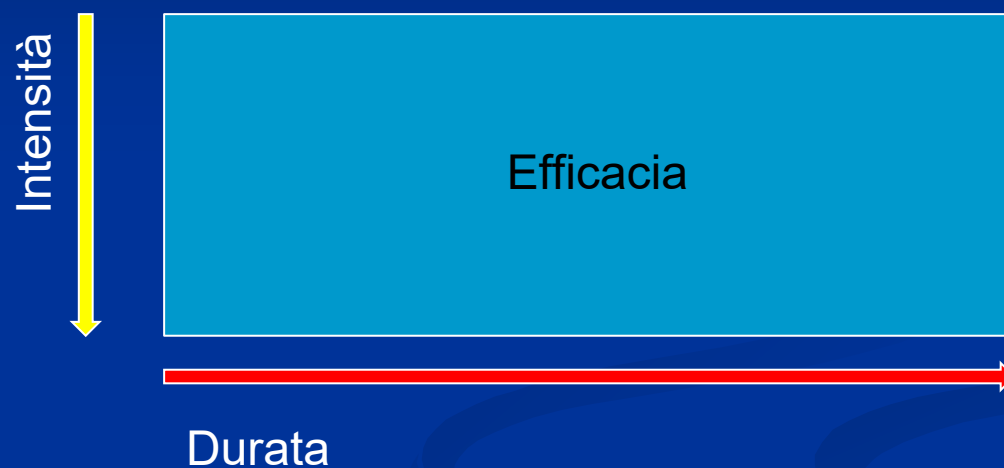
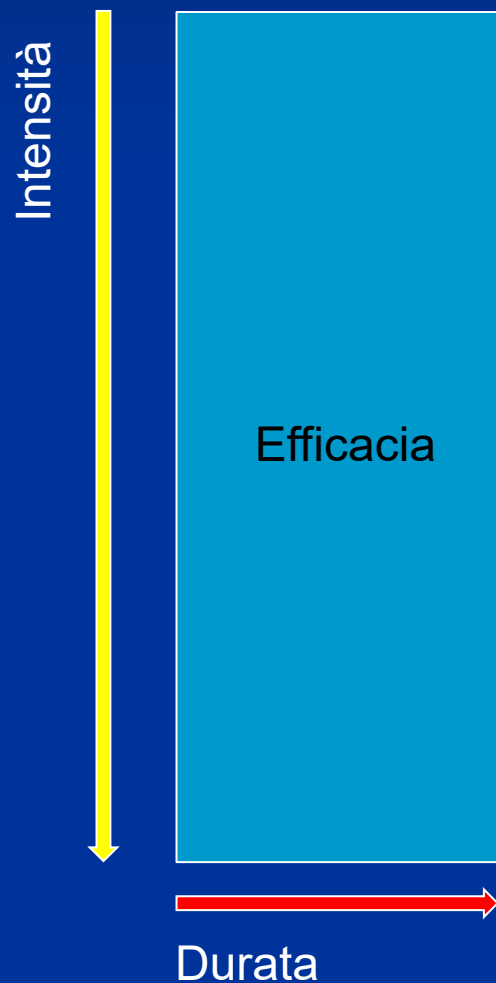
# Plasma cholesterol, clinical intervention, AUC



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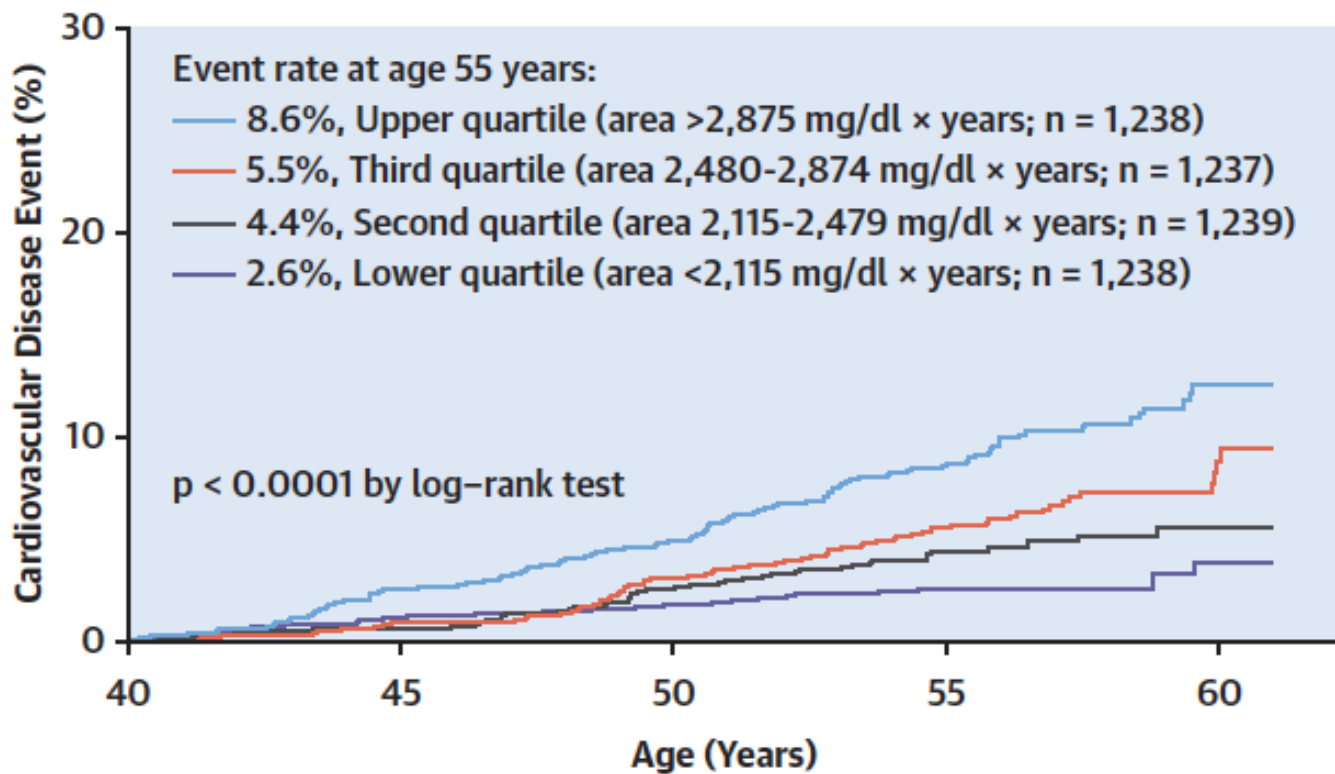


# Il rettangolo della prevenzione



# Time Course of LDL Cholesterol Exposure and Cardiovascular Disease Event Risk

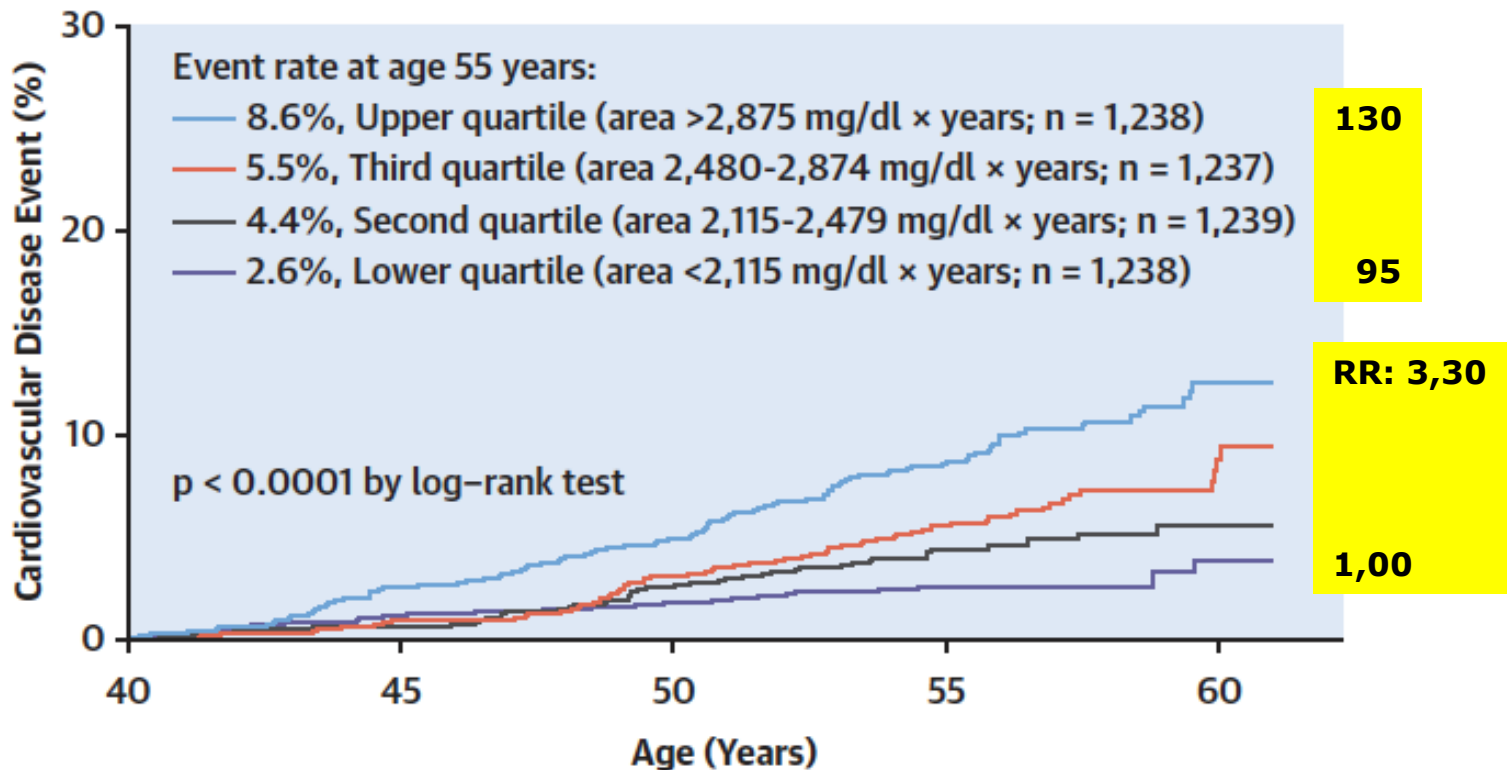
## A Risk According to LDL-C AUC Only Subgroups





# Time Course of LDL Cholesterol Exposure and Cardiovascular Disease Event Risk

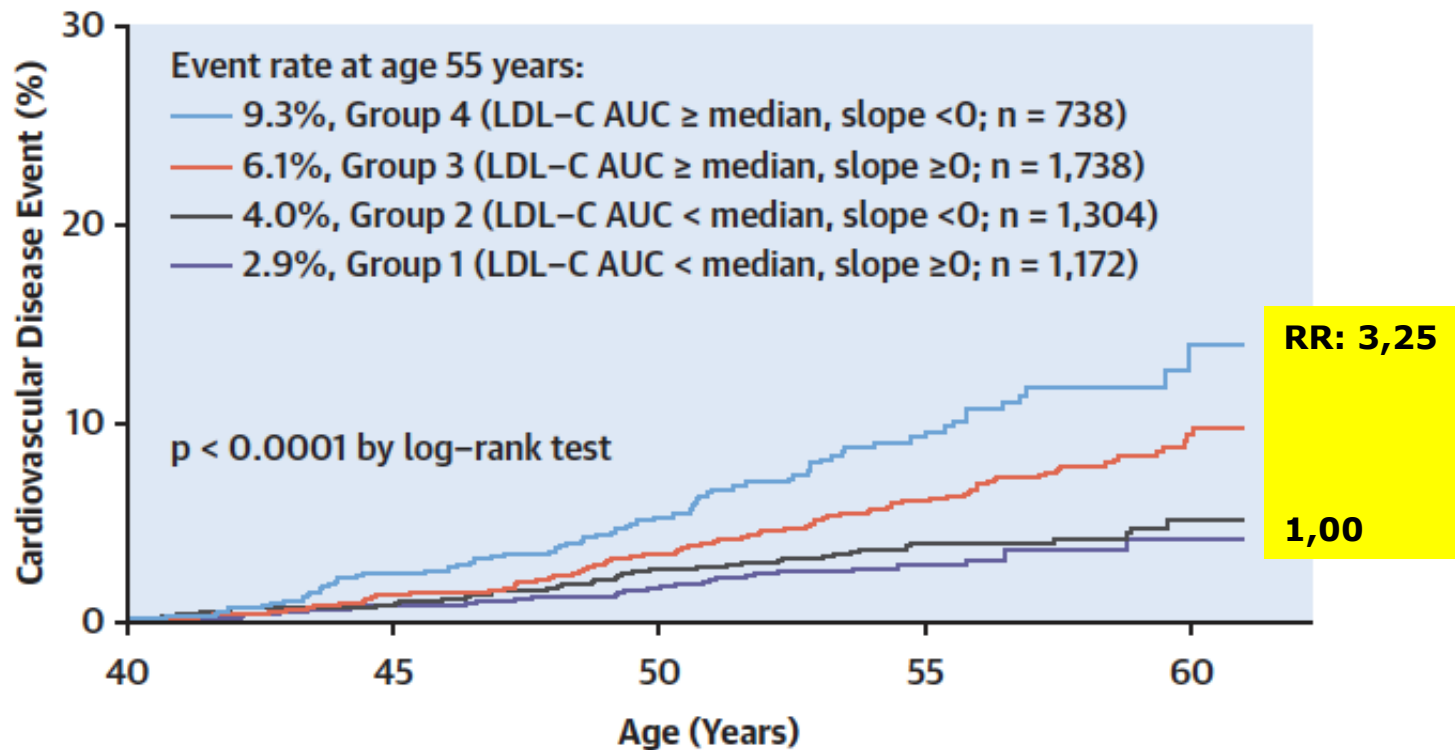
## A Risk According to LDL-C AUC Only Subgroups



22 yrs average obs.

# Time Course of LDL Cholesterol Exposure and Cardiovascular Disease Event Risk

## B Risk According to LDL-C AUC and Slope Subgroups



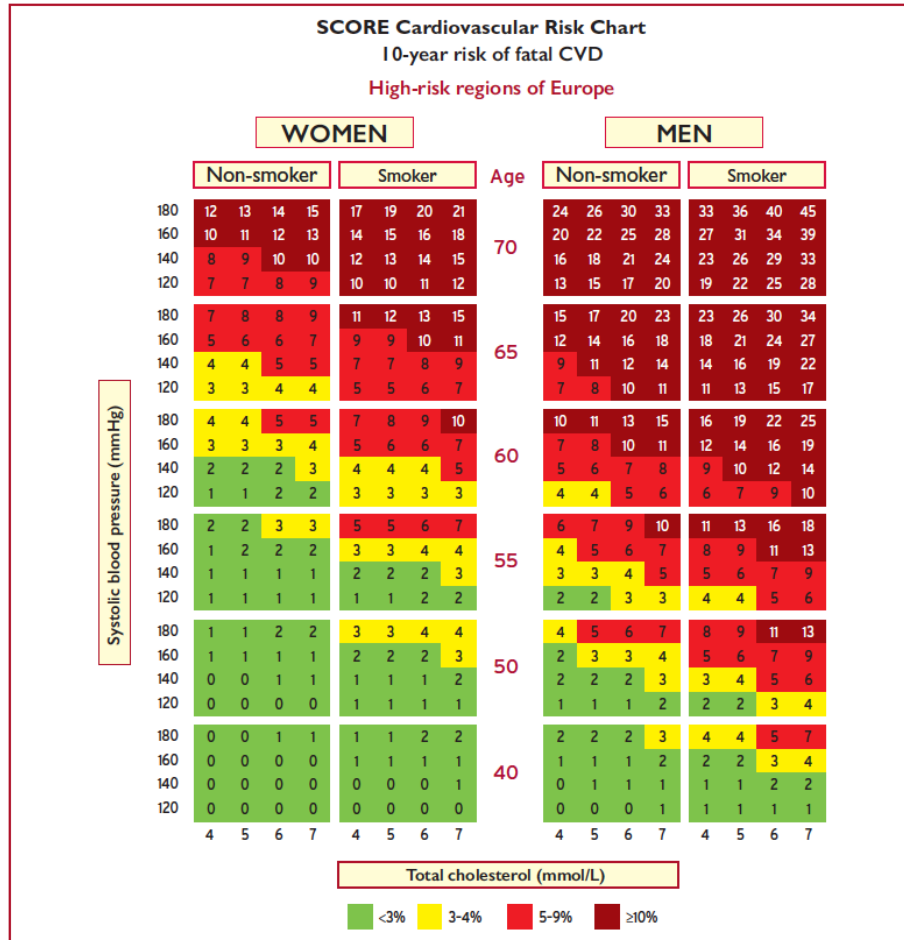
22 yrs average obs.

## **Gli aspetti chiave:**

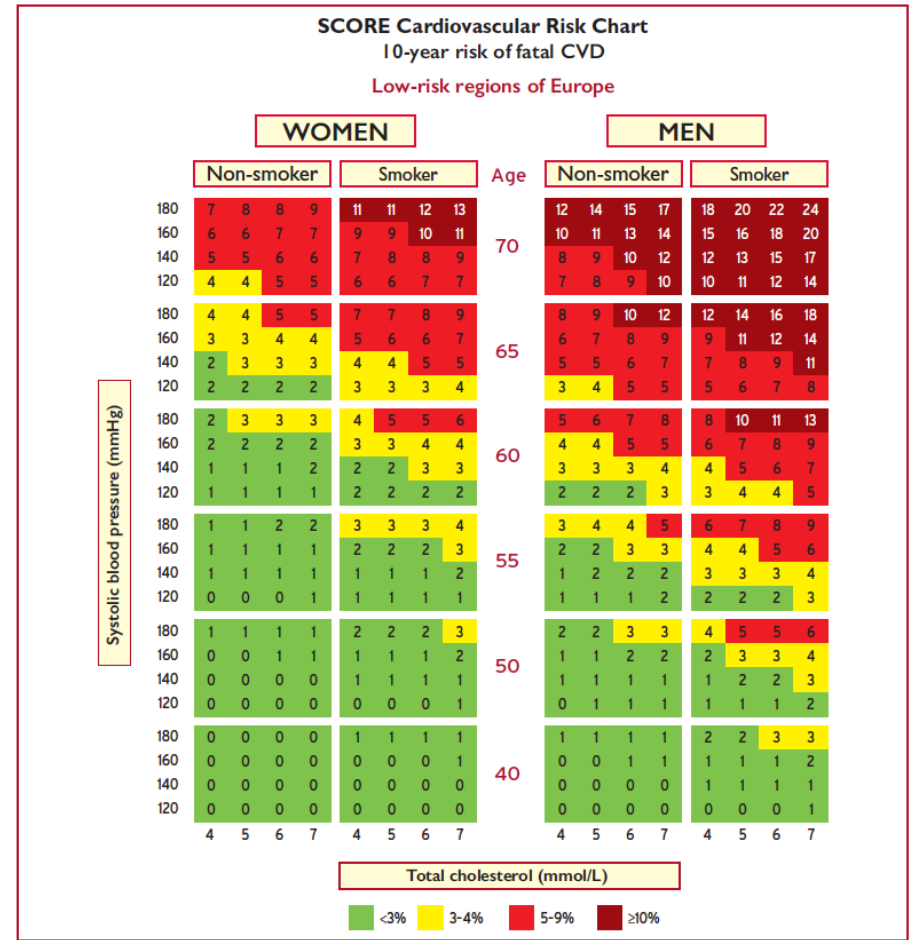
- **Definire il rischio CV globale del paziente**
- **Fissare il suo target terapeutico («fino a che valore voglio abbassare le sue LDL»?)**
- **Identificare il trattamento più appropriato ed accertarsi che il paziente lo segua (compliance)**

# 2019 ESC/EAS Guidelines for the management of dyslipidaemias

## High Risk Regions



## Low Risk Regions



The **low-risk charts** should be considered for use in Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, **Italy**, Luxembourg, Netherlands, Norway, Malta, Portugal, Slovenia, Spain, Sweden, Switzerland, and the UK.

# 2019 ESC/EAS Guidelines for the management of dyslipidaemias

## High Risk Regions

SCORE Cardiovascular Risk Chart  
10-year risk of fatal CVD  
High-risk regions of Europe

WOMEN

MEN

## Low Risk Regions

SCORE Cardiovascular Risk Chart  
10-year risk of fatal CVD  
Low-risk regions of Europe

WOMEN

MEN

Social deprivation: the origin of many of the causes of CVD.

Obesity and central obesity as measured by the body mass index and waist circumference, respectively.

Physical inactivity.

Psychosocial stress including vital exhaustion.

Family history of premature CVD (men: <55 years and women: <60 years).

Chronic immune-mediated inflammatory disorder.

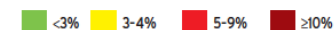
Systolic blood pressure (mmHg)



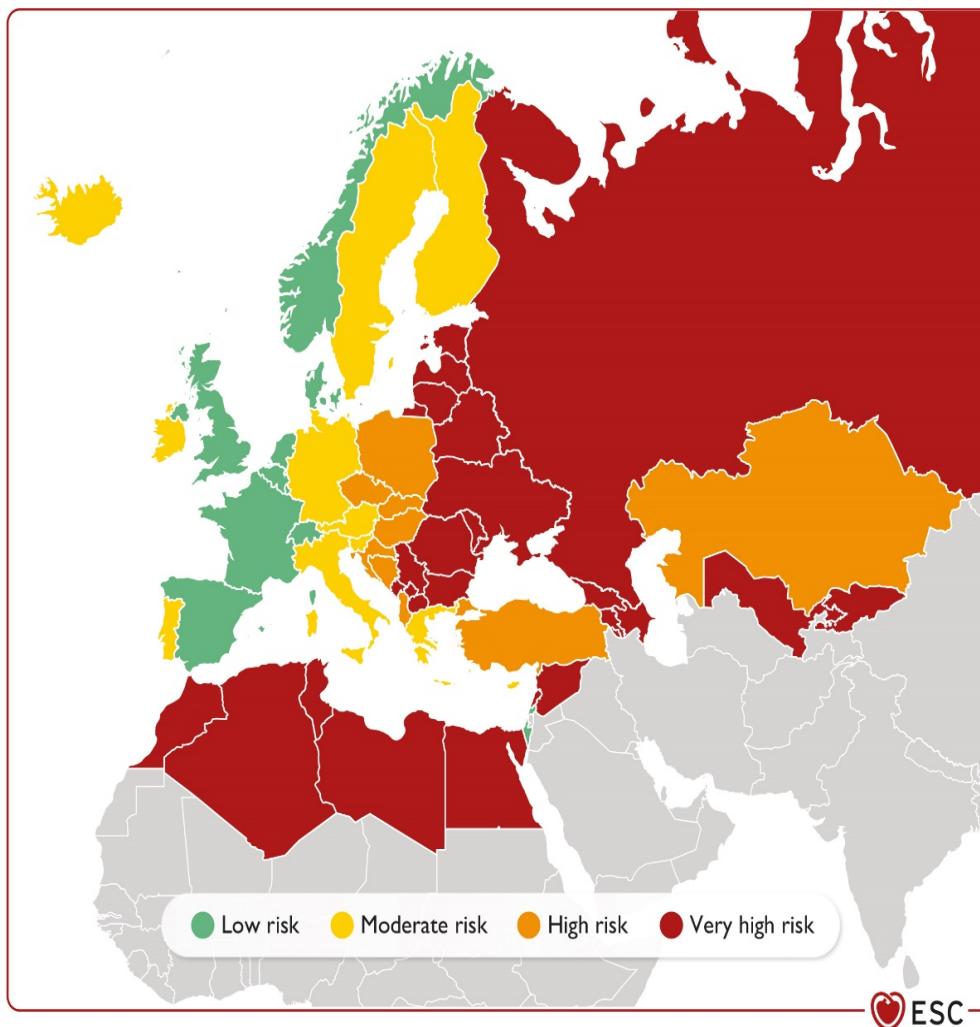
Total cholesterol (mmol/L)



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**Risk regions based on  
World Health Organization  
cardiovascular mortality  
rates**

## **Gli aspetti chiave:**

- **Definire il rischio CV globale del paziente, considerando tutti gli elementi a disposizione del clinico**
- **Fissare il suo target terapeutico («fino a che valore voglio abbassare le sue LDL»?)**
- **Identificare il trattamento più appropriato ed accertarsi che il paziente lo segua (compliance)**
- **Muoversi per tempo, ricordandosi dell'AUC, che continua a crescere. The sooner, the better**

# E concludendo:

Abbassare il colesterolo LDL è importante ad ogni livello di rischio; anche nei pazienti a rischio basso o moderato

Solo il medico, mediante una valutazione clinica che tenga conto a 360° del profilo di rischio cardiovascolare globale (stress, inquinamento, disagio sociale, familiarità ecc.), può decidere se e quando intervenire per ridurre la colesterolemia in questi pazienti

Non perdere tempo, dilazionando inutilmente intervento, è particolarmente importante alla luce del concetto di AUC

Interventi di efficacia moderata, ma attivati per tempo, possono influenzare questo parametro in maniera rilevante.





## 2021 ESC Guidelines on cardiovascular disease prevention in clinical practice

4.3.2.4.8. Functional foods. Functional foods containing phytosterols (plant sterols and stanols) are effective in lowering LDL-C levels by an average of 10% when consumed in amounts of 2 g/day.<sup>448</sup> The effect is in addition to that obtained with a low-fat diet or use of statins. No studies with clinical endpoints have been performed yet.

Red yeast rice supplements are not recommended and may even cause side-effects.<sup>449</sup>