

Press release – 84th European Atherosclerosis Society Congress, Innsbruck, Austria
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Sixth Joint Task Force 2016 European Guidelines on Cardiovascular Disease Prevention in Clinical Practice reaffirms low-density lipoprotein cholesterol as the priority for lipid control

- Lowering low-density lipoprotein cholesterol (LDL-C) is the key intervention to reduce the risk of heart attack and stroke
- Low plasma levels of high-density lipoprotein cholesterol (HDL-C) and elevated triglycerides are risk factors but the evidence does not support a goal for treatment
- Advice on lipoprotein(a) measurement is upgraded; measurement can be considered in patients at moderate risk or with a family history of early heart disease.

Cardiovascular disease, which includes heart attacks and strokes, causes about half of all deaths, more than 4 million, each year in Europe. Treating cardiovascular disease costs the European Union almost €196 billion a year.¹

The Sixth Joint Task Force of the European Society of Cardiology and Other Societies on Cardiovascular Disease Prevention in Clinical Practice has now published guidelines for prevention and management of cardiovascular risk factors in Europe.² Importantly, these comprehensive guidelines have reaffirmed LDL-C as the number one priority for lipid control. According to **Professor Alberico L. Catapano (University of Milan, Italy)**, European Atherosclerosis Society President and representative of the Society in the Writing Group for these guidelines: *'The causality of elevated LDL-C in atherosclerotic cardiovascular disease is proven. Therefore, clinicians should focus on lowering LDL-C levels in their patients, to reduce the risk of early heart attacks and strokes.'*

LDL-C goals and treatment

While LDL-C goals remain unchanged across the spectrum of cardiovascular risk, the Sixth Joint Task Force has refined the alternative goal of at least 50% reduction from baseline LDL-C levels for high risk and very high risk patients. This can be considered in very high risk patients with baseline LDL-C levels between 1.8 and 3.5 mmol/L (70 and 135 mg/dL), and high risk patients with baseline LDL-C levels between 2.6 and 5.1 mmol/L (100 and 200 mg/dL) (see **Table**).

Consistent with the 2011 Joint European Society of Cardiology/European Atherosclerosis Society guidelines,³ non-HDL-C is recommended as a reasonable and practical alternative to LDL-C as it does not require fasting for measurement.

Statins are the first choice for treating elevated LDL-C. In patients at high or very high risk of a heart attack or stroke, who require further LDL-C lowering to reach goal, ezetimibe is the treatment of choice for combination with a statin, supported by evidence from randomized controlled trials.⁴ With respect to new therapies, the guidelines recognize that there is consistent support from clinical trials for up to 60% lowering of LDL-C with the new proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors. However, the results of ongoing outcomes studies are needed before any definitive recommendations on their use can be made.

Table. Recommendations for lipid control: LDL-C and non-HDL-C

Risk category	LDL-C goal	Non-HDL-C goal
Very high risk	<1.8 mmol/L (<70 mg/dL) OR ≥50% reduction if baseline is between 1.8 and 3.5 mmol/L (70 and 135 mg/dL)	<2.6 mmol/L (<100 mg/dL)
High risk	<2.6 mmol/L (100 mg/dL) OR ≥50% reduction if baseline is between 2.6 and 5.1 mmol/L (100 and 200 mg/dL)	<3.3 mmol/L (<130 mg/dL)
Other patients on LDL-C lowering treatment	<3.0 mmol/L (<115 mg/dL)	<3.8 mmol/L (<145 mg/dL)

Other lipids and lipoproteins under scrutiny

The Sixth Joint Task Force has updated previous recommendations for HDL-C, triglycerides (a marker for triglyceride-rich lipoproteins), and lipoprotein(a), but also recognizes the gaps in evidence.

- Consistent with the Joint Guidelines for Dyslipidaemia,³ the Task Force recognizes that high fasting triglycerides (>1.7 mmol/L or >~150 mg/dL) and low HDL-C (<1.0 mmol/L or 40 mg/dL in men and <1.2 mmol/L or <45 mg/dL in women) are independent markers of increased cardiovascular risk. However, currently the evidence does not support targets for either measure.
- New to the Sixth Joint Task Force guidelines is the recommendation that clinicians may consider measuring lipoprotein(a) in patients at moderate risk to help in risk evaluation, or in those with a family history of early heart disease. This is supported by evidence that high lipoprotein(a) levels have been shown to have a causal role in cardiovascular disease.⁶ However, the guidelines do not give any goal as there are no randomized studies with treatments that are specific for lowering lipoprotein(a).

Importance of lifestyle

The guidelines emphasize lifestyle as the first fundamental step for preventing and managing cardiovascular disease and discourage consumption of sugar-sweetened soft drinks. Recommendations for lifestyle intervention now extend to people at very low risk (SCORE <1%), with LDL-C levels <2.6 mmol/L or 100 mg/dL.

The guidelines suggest that functional foods containing plant sterols or stanols, often referred to as phytosterols, which lower LDL-C levels by about 10% at an intake of 2 g/day, and other food supplements with a lipid-lowering effect may be considered, but emphasize that so far there is no evidence that these reduce the risk of heart attacks and strokes.

These guidelines on cardiovascular disease prevention from the Sixth Joint Task Force provide up-to-date accessible recommendations for lipid control for clinicians in their routine practice.

Wednesday 1st June: New Guidelines on Prevention of Cardiovascular Disease in Clinical Practice, W. Auerswald Hall, 11:00-12:30

References

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**Contact:**

EAS Press Officer**Dr. Andreas Ritsch****Dept. of Internal Medicine****Innsbruck Medical University**

Email: andreas.ritsch@i-med.ac.at

EAS Administration Executive**Dr. Carmel Hayes**

+46768 61 00 51

Email: office@eas-society.org

Notes for editors:

Notes for Editors**The Sixth Joint Task Force of the European Society of Cardiology and Other Societies on Cardiovascular Disease Prevention in Clinical Practice.**

The Six Joint Task Force, comprises representatives from the European Society of Cardiology and Five other societies, including the European Atherosclerosis Society, focused on cardiovascular disease prevention in clinical practice. The full guidelines were published on 24 May 2016 and are available from <http://eurheartj.oxfordjournals.org/lookup/doi/10.1093/eurheartj/ehw106>

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