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## #ESCCongress: New Management Pathways in Cardiovascular Risk Factors



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At the ESC Congress this year, several new guidelines have been released including updated guidelines on lipid control and new guidelines on diabetes and cardiovascular disease.

As per the [updated guidelines on lipid control](#), the following are some key recommendations:

- Low-density lipoprotein (LDL) cholesterol levels should be lowered as much as possible to prevent cardiovascular disease, especially in high and very high risk patients.
- There is no lower limit of LDL cholesterol that is known to be unsafe. Available drugs (statins, ezetimibe, PCSK9 inhibitors) should be used as effectively as possible to lower levels in those most at risk.
- As per revisions to the risk stratification categories, patients with atherosclerotic CVD, diabetes with target organ damage, familial hypercholesterolaemia, and severe chronic kidney disease will now be categorised as very high-risk.

In addition, [new guidelines on diabetes and cardiovascular disease](#) were also released during the ESC Congress. The key recommendations include:

- Lifestyle changes are now advised to avoid or delay the conversion of pre-diabetes states, such as impaired glucose tolerance, to diabetes. Physical activity of at least 150 minutes per week is being encouraged to prevent/control diabetes and reduce the risk of cardiovascular complications.
- Moderate alcohol intake should not be promoted. Alcohol consumption does not appear to be beneficial, hence the change in recommendations
- Self-monitoring of blood glucose and blood pressure is advocated for patients with diabetes to achieve better control.
- Statins are not recommended in diabetic women of childbearing potential and should be used with caution in young people.
- GLP-1 receptor agonists and gliflozins should be used as first-line treatment in type 2 diabetes patients with established cardiovascular disease or at high risk of cardiovascular disease.
- Non-vitamin K antagonist oral anticoagulants, specifically rivaroxaban, should be considered in combination with aspirin for patients with diabetes who have poor circulation in the legs.
- PCSK9 inhibitors are advised for patients with diabetes at very high risk of cardiovascular disease who do not achieve LDL cholesterol goals despite treatment with statins.
- Overall, lifestyle advice for patients with diabetes and pre-diabetes encourages them to quit smoking, reduce calorie intake, and adopt a Mediterranean diet.

In light of these new and updated guidelines, [Dr. Rafael Vidal Perez](#) of Hospital Clinico Universitario de Santiago de Compostela, Spain presented a case study of a 50-year-old woman living in Spain. She had some measurements of elevated blood pressure but was currently not

classified as a hypertensive. She had a family history of high cholesterol and coronary artery disease. The woman was a heavy smoker and worked in shifts in a nursing home. She was not taking any medication for BP or cholesterol but was on combined oral contraceptive pill. She was obese with a BMI of 31.2 Kg/m<sup>2</sup>.

Could the woman be suffering from hypertension? Determining that was the next logical step. Results from ambulatory blood pressure monitoring and BP home readings confirmed that she suffered from hypertension.

The next important question to answer was this: what was the patient's cardiovascular risk using the latest ESC guidelines? She was obese and she had a family history of premature CAD. Based on this and her lipid profile and eGFR score, it was obvious that her cardiovascular risk was very high. ESC guidelines recommend systematic cardiovascular risk assessment in individuals who are at an increased CV risk such as those with a family history of premature CVD, familial hyperlipidaemia, major CV risk factors such as smoking, high BP, DM or raised lipid levels or comorbidities. On the basis of these recommendations, this patient was clearly a Class I, Level C patient who required a total CV risk estimation using a risk estimation system such as SCORE. SCORE is an intuitive and easy to use tool that allows an objective assessment of risk and takes into account the multifactorial nature of CVD. The diabetes goes directly to high or very high risk in relation with organ damage and risk factors without using SCORE.

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The next thing to address was this: on the basis of the new lipid control guidelines, what should be the current LDL-C goal objective and treatment strategy for this patient? She was under 55, obese with high blood pressure, high cholesterol and a family history of type 2 diabetes and CAD. She would require lifestyle advice and drug treatment under the updated ESC guidelines.

Through this case representation, Dr. Vidal Perez successfully demonstrated how the new lipid control and diabetes guidelines could be applied and implemented in clinical practice to achieve better control in patients who are at a high risk of cardiovascular disease.

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