

New guidelines recommend lower LDL target in high-risk cardiovascular patients

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The South African Heart Association and the Lipid and Atherosclerosis Society of Southern Africa (LASSA) held their second joint guideline collaboration meeting on 15 and 16 October 2011. The meeting was attended by representatives of both societies, the funding industry and the Department of Health, as well as various medical specialists. With a view to optimising the management of cardiovascular disease in South Africa, both societies adopted the European Society of Cardiology (ESC)/European Atherosclerosis Society (EAS) dyslipidaemia guidelines published in the

European Heart Journal in June 2011.¹ These guidelines are now also the official South African guidelines to determine the most effective and appropriate diagnostic tests and treatments for dyslipidaemic cardiovascular disease. 'However, we will be tailoring certain dietary recommendations to our own ethnic groups. A major difference is that we won't be using the SCORE risk assessment system, which was developed based on European epidemiological data', said Dr Klug.

Table 1. Recommendations for lipid profiling in order to assess total cardiovascular risk

Condition	Class ^a	Level ^b
Lipid profiling is indicated in subjects with:	1	C
Type 2 diabetes mellitus		
Established cardiovascular disease	1	C
Hypertension	1	C
Smoking	1	C
BMI ≥ 30 kg/m ² or waist circumference > 94 cm (90 cm ² for men, > 80 cm for women)	1	C
Family history of premature cardiovascular disease	1	C
Chronic inflammatory disease	1	C
Chronic kidney disease	1	C
Family history of familial dyslipidaemia	1	C
Lipid profiling may be considered in men > 40 and women > 50 years of age	11b	C
SA Guideline Committee has added HIV-positive patients on antiretroviral therapy	1	C

^aClass of recommendation; ^blevel of evidence; ^cfor Asian males. BMI = body mass index.

Amended from ESC/EAS guidelines.¹

Table 2. Recommendations for treatment targets for LDL-C

Recommendations	Class ^a	Level ^b
In patients at VERY HIGH cardiovascular risk (established cardiovascular disease, type 2 diabetes, type 1 diabetes with target-organ damage, moderate to severe CKD or a Framingham score level ≥ 30%) the LDL-C goal is < 1.8 mmol/l and/or ≥ 50% LDL-C reduction when target level cannot be reached.	1	A
In patients at HIGH cardiovascular risk (markedly elevated single risk factor, a Framingham score level ≥ 15 to < 30%) an LDL-C goal < 2.5 mmol/l should be considered.	11a	A
In subjects at MODERATE cardiovascular risk (Framingham score level ≥ 3% and < 15%) an LDL-C goal < 3.0 mmol/l should be considered.	11a	C
Low risk (Framingham score level < 3%).		

^aClass of recommendation; ^blevel of evidence.
Amended from ESC/EAS guidelines.¹

'Because South Africa has no comparable data, we've always used the Framingham system and will be adopting the new Framingham system in future. Women's risk was underestimated by the old Framingham system, but the new system has addressed that, in addition to taking the risk of younger people into account. They can now be assessed more accurately.'

The key change in the new guidelines is the downward revision of the target LDL cholesterol level in very high-risk patients (> 30% Framingham risk). It has been lowered to 1.8 mmol/l from 2.6 mmol/l. The definition of 'very high risk' has also been expanded to include chronic kidney disease (CKD) in addition to diabetes, established vascular disease (including previous stroke or heart attack) and familial hypercholesterolaemia. CKD, defined as a glomerular filtration rate < 60 ml/minute/1.73m² for a period of more than three months, is now considered a major cardiovascular risk factor in its own right. In addition, the threshold for 'high risk' is now defined as > 15% Framingham risk and the LDL target in that group is < 2.5 mmol/l (Tables 1, 2).¹

'The INTERHEART study, published in the *Lancet* in 2004,² and to which Africa contributed 5% of the 30 000 patients involved, showed that the serum HDL:LDL ratio topped the odds ratio charts in predicting future myocardial infarction. It is therefore a major cardiovascular risk factor which, uncontrolled, will lead to a significantly greater burden of disease', says Dr Eric Klug, vice president of the SA Heart Association. 'Atherosclerotic cardiovascular disease is the global number one killer and the management of dyslipidaemia is therefore vital to addressing the epidemic. We and LASSA are

committed to engaging meaningfully with patients and re-establishing the central role of the medical profession in its evaluation, diagnosis and management.'

The new guidelines also take into account the implications of HIV/AIDS for dyslipidaemia in South Africa. HIV/AIDS is associated with abnormal lipid profiles in some patients and certain antiretrovirals (ARVs) can exacerbate matters. Already, simvastatin cannot be used in patients on protease inhibitors and the US Food and Drug Administration has now issued an official warning applicable to all patients, regardless of HIV status, that the 80-mg dose not be used in future. Stable patients currently taking 80 mg with no adverse muscular effects can be maintained on the dose. However, physicians need to maintain heightened awareness of potential drug interactions when adding any new medications to a patient's regimen.

The SA Heart Association is affiliated to the ESC and Dr Marja-Riitta Taskinen, emeritus professor of medicine at the University of Helsinki and a member of the EAS guideline committee, was present at the local meeting to advise the SA Heart Association

and LASSA. 'It therefore behoves us to follow its guidelines and not change them', says Dr Klug.

The challenge now is to disseminate the new guidelines effectively to the widest possible audience and the associations are looking to embark on a sustainable marketing campaign in this regard. 'Strategies to achieve this, including how to reach the "non-converted", were also discussed at the meeting', concludes Dr Klug.

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References

1. Task Force for the management of dyslipidaemias of the European Society of Cardiology (ESC) and the European Atherosclerosis Society (EAS). ESC/EAS guidelines for the management of dyslipidaemias. *Eur Heart J* 2011; **32**(14): 1769–1818. Published online June 28, 2011. doi: 10.1093/eurheartj/ehr158.
2. Rosengren A, Hawken S, Ounpuu S, Sliwa K, Zubaid M, Almahmeed WA, *et al*; INTERHEART investigators. Association of psychosocial risk factors with risk of acute myocardial infarction in 11119 cases and 13648 controls from 52 countries (the INTERHEART study): case-control study. *Lancet* 2004; **364**(9438): 953–962. PMID: 15364186 [PubMed - indexed for MEDLINE].