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**Commentary: Controversies in NICE guidance on lipid modification for the prevention of cardiovascular disease**

Francesco P Cappuccio

The new guidelines from the National Institute for Health and Clinical Excellence (NICE) on lipid modification for the prevention of cardiovascular disease will guide the way we assess cardiovascular risk and treat lipids, both in primary and in secondary care. What are the new aspects, and what is it that might spark controversy in this new publication?

**Risk assessment**

To identify those requiring primary prevention of cardiovascular disease, the guideline reaffirms the threshold of a 10 year cardiovascular disease risk >20% in people aged over 40 years. Its recommendation of a systematic, rather than opportunistic, risk assessment is welcome, particularly in primary care. The new guidelines wisely reaffirm the 1991 Framingham risk score as the score of choice for guiding primary prevention.

However, they also retain subjective, non-evidence-based adjustments. They advise increasing the risk estimate by 1.5-2.0 in the presence of premature family history and by 1.4 in South Asian men, and suggest clinical judgment for socioeconomic status and severe obesity. This is a missed opportunity for tackling at least some of these matters, such as the ethnic variations in vascular risk, with an evidence based approach.

The Framingham risk does not perform well in ethnic groups in the United Kingdom, and in the absence of UK cohort studies with significant proportions of black and ethnic minority groups, a web based tool (ETHRISK) has been developed for primary care physicians to allow for such variation. This pragmatic tool is based on a recalibration of existing Framingham risk scores against survey data on ethnic group risk factors and disease prevalence compared with the general population to produce 10 year risk in seven British black and ethnic minority groups. This could have been incorporated into most primary care computer systems. Although the tool is not ideal, its use in clinical practice would have at least partially prevented inequalities in cardiovascular disease prevention that are not easily overcome by subjective judgment.

**Lifestyle advice**

The approach to lifestyle advice is disappointing. It perpetuates the belief that, as each listed measure has been proved to reduce cardiovascular risk, providing such collective advice will be effective. This is not the case. Maybe a more tailored, patient centred approach...
Statins and targeting cholesterol levels

The NICE guidelines now recommend the use of statins for the primary prevention of cardiovascular disease in adults who have a 10 year cardiovascular disease risk >20%. They reinforce the preferential use of simvastatin for primary prevention, as supported by both intervention trials on cardiovascular end points and by economic appraisal. Lower dose pravastatin is recommended as a cheap alternative, but this neglects compelling data from the randomised controlled ASCOT trial, which used low dose atorvastatin (10 mg once daily) in high risk patients such as those targeted by the current guidelines. The study was stopped earlier than planned (median follow-up 3.3 years rather than 5 years) owing to the large reduction in major cardiovascular events in the intervention group (36%; 95% confidence interval 17% to 50%).

Finally, for secondary prevention, the guidance reaffirms the need to increase statin doses until total cholesterol is <4.0 mmol/l, or low density lipoprotein cholesterol is <2.0 mmol/l, as in the Joint British Societies’ JBS 2 guidelines. Introducing an “audit level” of cholesterol and an “ideal target” resembles the useful approach advocated in the British Hypertension Society’s hypertension guidelines.

Conclusion

Although the new NICE guidance on lipid modification comes closer to other guidelines issued by professional societies, it misses important opportunities for further improvement. It has taken two steps forward and one back—slow progress but progress.

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References


