Navigating The New Lipid Guidelines:

Reintroducing Targets

BY NARENDRA SINGH, MD

This past month the American College of Cardiology, the American Heart Association, the National Lipid Association and several other national organizations jointly released new lipid guidelines. Lipids are the single most powerful risk factor for the development of coronary artery disease and although we have been treating this for a long time, advancements continue in both our understanding of risk and how best to treat it. **I will highlight what I believe are the top 10 most important recommendations.**

1. In addition to measuring your good cholesterol -HDL, bad cholesterol-LDL and triglycerides TG please also calculate your ***non-HDL cholesterol*** which is your total cholesterol minus your LDL cholesterol.

2. At least once in your lifetime adults should have their ***LP(a) measured.*** This lipoprotein increases the risk for the development of heart disease. Ideally levels should be less than 125 nmol/L or less than 50 mg/dL. Although at present there are no treatments available, new agents are on the horizon to help lower levels.

3. Instead of measuring LDL cholesterol, a more accurate measurement of risk comes from ***measuring ApoB,*** especially in individuals who have diabetes or elevated triglycerides for any reason.

4. For adults who do not have coronary artery disease, a new risk calculator has been developed called ***PREVENT Equations*** which will provide you with a 10-year risk of developing both cardiovascular disease and heart failure.

5. Coronary artery calcification - ***CAC scoring*** to identify early atherosclerosis in the heart is now recommended to help decide who needs to go on lipid-lowering therapy.

6. Measuring ***hs-CRP*** a marker of inflammation is recommended to determine who is at increased risk of plaque rupture which is the triggering event for a heart attack or stroke.

7. Just when you thought that your lipids were at goal, the targets have been changed and lowered. For the ***low to moderate risk population*** LDL should be less than 100 mg/dL, non-HDL should be less than 130 mg/dL and ApoB should be less than 90 mg/dL. For the ***high-risk population*** LDL should be less than 70 mg/dL, non-HDL should be less than 100 mg/dL and ApoB should be less than 80 mg/dL For the ***very high-risk populatio***n LDL should be less than 55 mg/dL, non-HDL should be less than 85 mg/dL and ApoB should be less than 70 mg/dL. Finally for the ***extremely high-risk population*** LDL should be less than 40 mg/dL, non-HDL should be less than 70 mg/dL and ApoB should be less than 55 mg/dL.

8. In the past we have had limited treatment for ***elevated triglycerides***. While fenofibrate will lower triglycerides they provide no cardiovascular benefit. Omega-3's and especially icosapent ethyl do provide cardiovascular benefit but lower triglycerides only a small amount. We now have powerful agents such as Olezarsen (Tryngolza) and Plozasiran (Redemplo) to treat high levels especially with the familial chylomicronemia syndrome.

9. Statins remain our most important therapy to lower LDL cholesterol and do not cause dementia but can be associated with muscle aches and pains. ***Multiple non-statin options*** now exist including ezetimibe, bempedoic acid, monoclonal PCSK9 inhibitors and PCSK9 synthesis inhibitors. In addition, oral PCSK9 inhibitors (Enlicitide) and an oral CETP inhibitor (obicetrapib) will also soon be on the market giving patient's multiple options to help achieve the lower lipid targets

10. Finally, identifying risk early, including childhood, initiating treatment at an earlier age, and ***continuing treatment for longer duration often lifetime*** will help reduce the burden of heart attacks, strokes, and peripheral vascular disease.

NEW LDL-C TARGETS

Lower targets. Greater protection.

RISK CATEGORY	LDL-C GOAL	NON-HDL GOAL	APOB GOAL
Low–Moderate Risk	<100 mg/dL	<130 mg/dL	<90 mg/dL
High Risk	<70 mg/dL	<100 mg/dL	<80 mg/dL
Very High Risk	<55 mg/dL	<85 mg/dL	<70 mg/dL
Extremely High Risk	<40 mg/dL	<70 mg/dL	<55 mg/dL

Lowering lipids to guideline-recommended targets reduces the risk of heart attacks, strokes, and cardiovascular death.

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