

**R. SCOTT
WRIGHT:**

The guidelines were released here at the American Heart Association. And I think they are a home run. They corrected the mistakes from the last edition in terms of recognizing that there are important thresholds or levels of LDL cholesterol for which evidence justifies strongly the use of lipid lowering therapy to achieve, if not exceed.

And the biggest change in the guidelines in that regard that I can see is that they've now established 70 milligrams per deciliter as the threshold of treatment, or target for treatment, for nearly every class of patient. The class with familial hypercholesterolemia should be driven to 70. The patient for primary prevention with several risk factors should be driven to 70. The populations of patients with coronary artery disease, peripheral vascular disease, or the equivalent of coronary artery disease should all be driven to 70.

They, of course, recommend the use of generic-based therapies initially, the statin drugs. And they continue the idea of high intensity and intermediate intensity statins. But for all practical purposes, most patients should be on fairly high doses of whatever statin drug you pick, because it's just wasting time to start at a low dose and ramp up if you intend to take them to a higher dose. And then they recommend progressing with a ezetimibe but ultimately with PCSK9 therapies for many patients.

If I'm disappointed in anything with the current guidelines, I think they did not put enough weight in the evidence of the PCSK9 outcome trials and the IMPROVE-IT outcome trial, all of which have shown now that an LDL of below 50 or 55 offers a benefit to an LDL of 70, an incremental benefit. I think that we really need to take LDLs very low in patients who have had acute coronary syndromes or have a very high burden of cardiovascular disease. And so I tend to, in my practice, drive those LDLs lower if the patients are tolerating lipid lowering therapy.

The guidelines really do acknowledge the important role that PCSK9 drugs play. They have widely recommended their use as level 2a evidence, which is the appropriate thing to do. Let's not forget that there are two very good outcome trials in patients with coronary artery disease and recent myocardial infarction, the FOURIER trial and the ODYSSEY OUTCOMES trial both have been published in the prestigious *New England Journal of Medicine*. Both show a significant and clinically meaningful reduction in the primary endpoints, which include death, non-fatal MI, and stroke. So I think the PCSK9 drugs will be more widely used. And I think the cost reductions by both of the major sponsors of those drugs will go a long way to making the class affordable.

At the end, I think if there is a winner in the guidelines, the winners are patients, that they will be treated more aggressively, more appropriately, and clinicians now understand the importance of an LDL of 70 and below 70 for treatment. I was also delighted to see the guidelines offer ideas on patients who often are forgotten, those who have additional risks like those with inflammatory disease or HIV or chronic kidney disease. They had specific figures and recommendations for those groups of patients. And it's identical to the others. Take the LDL to below 70.

So I'm glad that we now are being much more inclusive with the lipid guidelines for broader groups of patients. They even touched into the pediatric population. I'm not a pediatric cardiologist. I typically do not treat and comment on those cases. But the guidelines have data there if you're interested in treating them.

So in summary, the guidelines, I think, are a real win. They get us back on the correct track. They establish a LDL threshold of 70 that we should all treat to. They broaden the base of who should be treated to beyond patients with diabetes, cardiovascular disease, to those who have inflammatory conditions, those with chronic kidney disease, those who are really CAD risk equivalents. And they talk about the important cost-effective treatment with statins, ezetimibe, and then PCSK9 drugs.