

BroadcastMed | Returning to Specific LDL Cholesterol Goals

[MUSIC PLAYING]

THOMAS ALLISON: Greetings. I'm Dr. Thomas Allison, associate professor of medicine at Mayo Clinic. During today's roundtable review, we will be discussing returning to specific LDL cholesterol goals. I'm joined by my colleagues, Dr. Francisco Lopez-Jimenez and Dr. Stephen Kopecky. Both are experts and specialize in cholesterol management. Welcome, Steve and Francisco.

STEPHEN KOPECKY: Thank you, Tom.

FRANCISCO LOPEZ-JIMENEZ: Thank you, Tom.

THOMAS ALLISON: The new cholesterol guidelines are now nearly two years old, but LDL cholesterol goals haven't seemed to have gone away. Do you still think it's appropriate to have a goal for LDL cholesterol? Do you use a goal in your practice? Steve, let me ask you that first.

STEPHEN KOPECKY: Yeah, Tom, I still do use goals. I like goals. We're a numbers society, and a couple of pieces of science push us towards goals. We know that from intervascular ultrasound studies that coronary regression starts to occur below LDLs of 80. And plus, remember the COURAGE study had a goal of 80 LDL.

THOMAS ALLISON: I was one of investigators on that.

STEPHEN KOPECKY: You were an investigator. That's right. Dr. [INAUDIBLE] was one of the PIs. And it showed that if you had optimal medical therapy with a goal of 80, you didn't really need angioplasty. So we have good science behind it.

THOMAS ALLISON: Francisco, how about you?

FRANCISCO LOPEZ-JIMENEZ: Yes, I do believe that there is a role for goals. I think it's important to understand the reason behind the recommendation to use intensity-based therapy. That's what the clinical trials were based on, cholesterol medicine versus placebo, high intensity, low intensity study. However, I think it's also important to recognize that we do believe that cholesterol has a threshold, at which some point, it will cause harm. And therefore, leaving patients with a cholesterol value that is above that threshold and without additional treatment might not be the right thing to do.

THOMAS ALLISON: Good, good. And you know, my patients still ask me, what's my LDL? Am I below 100? Am I below 70? So patients haven't given up the goals either. Now, the recently published IMPROVE-IT trial saw a significant improvement in outcomes when the LDL cholesterol was reduced to a mean of 53.7 on a combination of statin and ezetimibe versus 69.5 on statin alone. So two questions about your practice after this trial. One, are you now using more ezetimibe or other medications on top of statin? And should we lower the LDL goal, since you both now believe in LDL goals? Should we lower to 60 or maybe even 50? Steve, where do you stand on this?

STEPHEN KOPECKY: Well, you know I do use ezetimibe quite a bit. I'm going to it a little earlier now than I used to rather than pushing the statin dose up, because we get side effects with higher doses of statins. And plus, as we're starting to use PCSK9s, ezetimibe is one of the requirements that we go to that before we go to a PCSK9.

THOMAS ALLISON: And the goal, Francisco, 60, 50, OK with 70? Does this study change the landscape like, for example, TNT changed the landscape from 100 to 70? Is this now pushing us further down the hill?

FRANCISCO LOPEZ-JIMENEZ: Well, I do believe that recognizing what is the optimal goal is pretty difficult. I think it's inappropriate to base a goal on the basis of the average LDL reduction or level in a particular type of group. That doesn't really mean that that's the level at which LDL cholesterol doesn't harm or is safe. I think that's something that we still need to answer, but I think it's very clear that the IMPROVE-IT trial proved the cholesterol hypothesis that the lower the better. We still don't know what is the best level at which LDL cholesterol might not be harmful.

THOMAS ALLISON: Great. Steve, we've got a patient with documented coronary disease. You measure her LDL cholesterol. It's below 60. Statin?

STEPHEN KOPECKY: Good question. I actually had a patient like this this week who was doing everything perfectly. No smoking, right weight, good diet, et cetera-- I said, you know, this may be a benefit, because she's having recurrent events. This may be of benefit to you. We don't really have the data to support it. But it may be beneficial. And she said, OK, let's do it.

THOMAS ALLISON: On the whole, there's not many patients like that.

STEPHEN KOPECKY: No, there's not, not that don't have a good lifestyle. Most of them you can change their lifestyle.

THOMAS ALLISON: OK, Francisco, any other comment on that?

FRANCISCO LOPEZ-JIMENEZ: Yeah, the same, and also, it might be an opportunity to check the non-HDL cholesterol. In some individuals with an LDL cholesterol of 60, the non-HDL cholesterol may be just slightly above that. Whereas in others with an LDL cholesterol of 60, the non-HDL may be pretty high. And I would probably target that patient first.

THOMAS ALLISON: I think the previous guideline focused more or allowed more latitude in terms of high triglycerides, low HDL, lipoprotein A, LDL particles, apoB. Now we're pretty focused just on that LDL goal. So that's a very good point I think you make. Now, how about percent reduction? The cholesterol guideline here advocated a 50% LDL reduction in the high-risk patients. Do you think that's really a viable goal? And maybe let Steve comment first on that.

STEPHEN KOPECKY: Well, the studies that were done by the companies that mostly ran these studies, so we want a 50% reduction. But you have to look at that was the mean reduction. There's about 20% of people that are hyporesponders, meaning they have a less than 15% reduction, and some actually go up. Their LDL actually goes up on the statin. It's hard to believe, but they do. And we need to check them, and we need to make sure that they are the 50% reducer, not one of the outliers.

THOMAS Francisco?

ALLISON:

FRANCISCO Yeah, I agree.

LOPEZ-

JIMENEZ:

THOMAS Great. Do we always have a good baseline LDL? What about the ACS setting? Do we know? Do we know where to
ALLISON: start from to count our 50%?

FRANCISCO That's a very good point. I think, in many patients, we don't know what the baseline LDL cholesterol was. If we
LOPEZ- have a good electronic medical record that goes back 10, 15 years, we might have a number. But otherwise, we
JIMENEZ: just don't have the values. So in that sense, we are stuck not knowing when and how the percent reduction was.

THOMAS All right, I'm going to shift gears from secondary prevention to primary prevention. So a patient comes in, and
ALLISON: regardless of whether you're using guidelines, percent reduction, or have an LDL cholesterol goal, you've got a
30-year-old patient with an LDL cholesterol of 170. Other risk factors are unremarkable. He doesn't smoke. Blood
pressure is reasonable, not diabetic, fairly active, but LDL cholesterol is 170. Francisco, are you going to offer
that patient a statin?

FRANCISCO I will very likely offer the option. I think this is something that has to be discussed with the patient. My take on
LOPEZ- that is that we treat our blood pressure at 180 regardless of the age of the patient. We are promoting smoking
JIMENEZ: cessation regardless of the underlying risk for coronary events. Even if the patient is 25, we will still recommend
smoking cessation. So I don't see any reason why not to target a harmful factor, which is cholesterol, in an
individual who might prevent heart attack, not for the next 10 years, but perhaps for the next 30 years or longer.

THOMAS Yeah. Steve?

ALLISON:

STEPHEN Yeah, I'd certainly have a discussion, like Francisco was saying, and show them their lifetime risk. This guy is
KOPECKY: going to have a very low 10-year risk, but the lifetime risk is probably going to be pretty high. And say, listen, this
is what you're stuck with. We need to do something now, not wait.

THOMAS And just one last comment on that scenario, the new guideline eliminated low-dose statin therapy. Whereas the
ALLISON: polypill concept is, give a lot of people a little bit of therapy, very few side effects, treat them over a long period
of time. And that results in a huge reduction. For example, the early studies of PCSK9 were looking, really, only a
15% or 18% LDL reduction with the genetic polymorphism. But you had a very large long term reduction in event
rates.

STEPHEN That's a great point, Tom. If you look at Rose's paradox, where the majority of events are going to occur in the
KOPECKY: people that we call normal, in fact, in America this year, 25% of the people that have heart attacks are going to
be high risk. 75% we would say they were not high risk at the time of their heart attack.

FRANCISCO LOPEZ-JIMENEZ: But the other important factor there is to keep in mind that when we talk about cholesterol goals, we are really taking a more holistic approach, considering all kinds of methods to lower cholesterol. And lifestyle is one of those. So if we can achieve a good LDL cholesterol number with a combination statins, lifestyle, exercise, nutrition, and perhaps in some patients, an additional medication, I think that's a more patient-centered approach.

THOMAS ALLISON: Yeah, I find a lot of patients will accept half of the dose of statin I'd recommend, and in return, they'll give me half of the dietary change that I'd like to see them have. And we get to goal that way.

FRANCISCO LOPEZ-JIMENEZ: Sure, good.

THOMAS ALLISON: Thanks, Francisco and Steve, for your very important insights. And thanks to our viewers for tuning in to Roundtable Reviews at theheart.org on Medscape.