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ReachMD
www.reachmd.com
info@reachmd.com
(866) 423-7849

Aiming Lower: Addressing the Gaps in LDL-C Management for ASCVD Patients

ReachMD Announcer:
Welcome to *Heart Matters* on ReachMD. This medical industry feature, titled "*Aiming Lower: Addressing the Gaps in LDL-C Management for ASCVD Patients*," is sponsored by Amgen. Here's your host, Dr. Charles Turck.

Dr. Turck:
Atherosclerotic cardiovascular disease, or ASCVD, is a major public health concern.[1] Every 40 seconds in the US, a patient has an MI or stroke,[1] and over 40 percent of those with a prior cardiovascular event had at least one new cardiovascular event within two years.[2] And so with these troubling statistics in mind, we're going to take a look at the critical role of LDL-C management in reducing cardiovascular risk, particularly in very high-risk patients, through the lens of a case study.

This is *Heart Matters* on ReachMD, and I'm Dr. Charles Turck. Joining me are Drs. Kari Uusinarkaus and Payal Kohli. Dr. Uusinarkaus is Medical Director of Common Spirit Health and a board-certified Family Medicine physician in Colorado Springs, Colorado.

Dr. Uusinarkaus, welcome to the program.

Dr. Uusinarkaus:
Glad to be here for this conversation on the importance of high-risk ASCVD and treatment.

Dr. Turck:
Also with us is Dr. Kohli, who's an Adjunct Associate Professor of Cardiology at Duke University and Johns Hopkins University, as well as the Founder and Medical Director of Cherry Creek Heart in Aurora, Colorado. Dr. Kohli, thank you for joining us today.

Dr. Kohli:
Thanks so much for having me.

Dr. Turck:
Let's start off with you, Dr. Uusinarkaus. Could you introduce our patient case, which we'll be following throughout our discussion today?

Dr. Uusinarkaus:
I'd be happy to. So patient "AM" is a 65-year-old male with a history of STEMI six months ago, treated with percutaneous coronary intervention. He's a former smoker and also has diabetes, with a HbA1c of 6.8 percent. His medications include a statin, an SGL2 inhibitor, and a biguanide. At his visit today, AM's blood pressure is 122/76, and his most recent LDL-C is 90 milligrams per deciliter.

AM's medical history categorizes him as a very high-risk ASCVD patient according to current clinical guidelines. The 2018 American Heart Association/American College of Cardiology, or AHA/ACC respectively, multi-society clinical guidelines define very high-risk ASCVD patients as those with a history of at least two major ASCVD events or one major ASCVD event along with multiple high-risk conditions such as diabetes. So AM clearly fits into this category with his recent MI, age, and diabetes.[3]

Dr. Turck:
I see. So given AM's profile as a patient at very high-risk for future ASCVD events, Dr. Kohli, how might this influence your approach to managing his long-term outcomes?

Dr. Kohli:
I completely agree with Kari's assessment here that AM falls into the very high-risk category for having another ASCVD event. And

unfortunately, cases like his in our clinic are not all that uncommon, and LDL-C recommended levels remain suboptimal. So, they're just far below where they ought to be in our patients with ASCVD.[4,5]

In fact, in a retrospective cohort study, over 90 percent of patients with a history of any major ASCVD event met the definition for very high-risk based on the 2018 AHA/ACC Multi-Society guidelines. So that's the majority of our patients.[4]

And in that same study, *only* one-third of the study population who had a history of ASCVD also achieved an LDL-C level below 70 milligrams per deciliter.[4]

Since then, the 2022 ACC Consensus Pathway has shifted that threshold to even lower, to 55 milligrams per deciliter.[6] So 55 is the new 70. So with this threshold, an even lower percentage of patients with ASCVD could now be expected to be meeting guideline-recommended LDL-C levels.[4]

Dr. Turck:
With this in mind, Dr. Kohli, what's the key piece of information from the patient case that you think we should focus on?

Dr. Kohli:
There is so much that we do at the clinics every single day to reduce cardiovascular risk. We manage obesity, we talk about smoking, we work on diabetes, we work on high blood pressure. And sometimes we wonder, what is the impact of everything that we're doing?

Well, data from the INTERHEART study, which was conducted in over 50 countries, evaluated various risk factors for an acute MI. And of nine modifiable risk factors that account for over 90 percent of the risk of MI, it was determined that reducing lipids had the greatest impact. So that's what really gives us the biggest bang for our buck![7]

So if I were AM's physician, even though there are other modifiable risk factors for an MI,[7] my first priority would be to optimize his lipid management to reduce his risk of having another CV event.

Dr. Turck:
That's a really important point, Dr. Kohli. So coming back to you, Dr. Uusinarkaus, how do current guidelines recommend we manage AM's LDL-C?

Dr. Uusinarkaus:
We have multiple guidelines and consensus statements which advise us on the importance of reducing LDL-C in patients with very high-risk ASCVD. And over the years, medical societies have continued to lower their recommended LDL-C levels more and more.[6,8–13]

As Dr. Kohli mentioned earlier, although the 2018 AHA/ACC Multi-Society Guidelines recommended a threshold of 70 milligrams per deciliter to intensify lipid-lowering therapy,[3] major medical societies including the 2022 ACC Consensus Pathway have now updated their LDL-C levels to *below 55* milligrams for very high-risk ASCVD patients like AM.[6]

But despite these new LDL-C-lowering recommendations from various medical societies, we often see that these lower goals or thresholds are missed or not aggressively pursued in patients like AM,[14] even though we've seen a clear linear relationship between lower LDL-C reduction and a reduction in cardiovascular events.[15,16]

Dr. Turck:
You're listening to *Heart Matters* on ReachMD. I'm Dr. Charles Turck, and today I'm speaking with Dr. Uusinarkaus and Dr. Kohli about how we can achieve ASCVD risk reduction by targeting LDL-C levels.

So returning to our case, it seems clear that AM's current LDL-C of 90 milligrams per deciliter is far above the recommended level. Dr. Kohli, would you say this undertreatment is representative of broader trends in LDL-C management?

Dr. Kohli
It absolutely is. AM's case is, unfortunately, much more common than we'd like, and many patients are undertreated despite being on lipid-lowering therapies.[14]

For example, let's talk about data from the GOULD registry, where about 5,000 outpatients with ASCVD who were on lipid-lowering therapy were followed over two years. Results from this study show us that only about one-third of these patients achieved LDL-C levels below 70 milligrams per deciliter, and only about *15 percent* achieved the *recommended* LDL-C level of less than 55 milligrams per deciliter. *15 percent*![14]

This is a huge missed opportunity that really leaves patients like AM so much more vulnerable to having future cardiovascular events.

And on that note, regular LDL-C monitoring and follow-up might have prompted an escalation of AM's therapy, such as adding a non-statin agent or increasing his statin dose, to bring his LDL to the recommended level and reduce his risk for having further CV events.[6]

Turning back to data from the GOULD registry, only 17 percent of ASCVD patients on lipid-lowering therapy had their treatment intensified. We *have* the evidence that treatment intensification to lower LDL-C reduces risk for patients like AM, so we've really got to do better.[6,14]

I'd also like to take a moment here to note something from AM's lipid test. We don't know when it's from, but if his case is similar to the majority of individuals who are at very high-risk for having another ASVCD event, there's a good chance that this test is not very recent.[14]

Again, the GOULD registry here gives us important context, in that only about one in five ASCVD patients who were on lipid-lowering therapy had just one lipid panel drawn over the two years of follow-up. And you might even be surprised to know that one in ten of these very high-risk patients didn't have a single lipid panel at all during that entire timeframe.[14]

So it's not just a matter of driving down the LDL-C, it's also a matter of checking it and monitoring it regularly in patients like AM who are post-ASCVD event.[6] Otherwise, at the end of the day, we really have a blindfold on when it comes to LDL-C lowering to figure out what the risk is and working on reducing their CV risk.

Dr. Turck:
On that note, Dr. Uusinarkaus, how does post-event management and lipid testing influence treatment decisions?

Dr. Uusinarkaus:
Well, we know that post-event LDL-C testing is essential when intensifying lipid-lowering therapy to ensure that patients achieve recommended LDL-C levels.[6]

But in this area, again, we're sadly falling short. Studies show that roughly 25 percent of patients received an LDL-C test within three months of an MI, and only about half had a test within the first year.[17]

And yet, if all eligible patients were started on high-intensity statin plus additional non-statin therapies, up to 98.4 percent would have an LDL-C less than 55 milligrams per deciliter.[18]

These cohort studies highlight that LDL-C testing, achieving target levels, and intensifying lipid-lowering therapy continue to remain suboptimal in ASCVD patients.[14,17,18]

As a result, many ASCVD patients are at risk of future CV events.[17]

Looking back at our patient case, after AM's STEMI, it's critical to check LDL-C levels regularly to assess how he's responding to therapy and whether treatment intensification is needed.[6]

Dr. Turck:
Now, we've discussed some significant gaps in care, but another challenge facing patients like AM is the impact of health disparities. So, Dr. Kohli, can you tell us how these disparities can affect patients like AM?

Dr. Kohli:
Yes, in a retrospective cohort study of Medicare beneficiaries, only about 30 percent of patients had their LDL-C measured within 90 days after an MI. And those rates, no surprise, were even lower amongst non-Hispanic Black individuals. And this really reveals a health disparity with a huge opportunity to try to improve testing and identify ASCVD patients who are at most at risk for having another event. And when you look at the US data geographically nationally, LDL-C testing remained suboptimal in North Central regions of the country.[19] So, addressing these disparities in these patient populations by increasing testing and adhering to these guideline-recommended therapies may help reduce these cardiovascular events and bridge this disparity and this gap.

Dr. Turck:
Well, it's clear from our discussion just how critical LDL-C management is, but it seems there's often a disconnect between recognizing its importance and consistently achieving recommended LDL-C levels. So if we turn to you, Dr. Uusinarkaus, one final time before we close, what do you see as the key factors contributing to this disconnect between knowing and doing?

Dr. Uusinarkaus:
There are several layers here, and if we start with prescriber factors, negative clinical inertia is one major issue. Even though guidelines

clearly outline the importance of aggressive LDL-C lowering, prescribers may not always act quickly enough to intensify treatment or change prescribing patterns.[20–22]

Then there's the challenge of guideline changes over time, which can be difficult to keep up with. We've seen recommendations for LDL-C targets become more stringent, but not every provider adjusts their approach accordingly. Instead, we keep doing what we're used to doing.[20–22]

From a health system perspective, we see barriers like the economic burden of treatments. Time constraints during clinic visits also limit opportunities to dive deep into a patient's lipid management.[20,21]

Now, patient factors play a role as well. As we discussed, we know that healthcare disparities impact who gets tested and who gets treated for LDL-C. There's also the issue of nonadherence by patients, whether intentional or not. Some patients might not understand the importance of lipid-lowering therapy or might stop their medications due to concerns about side effects.[20–22]

So ultimately, to close this gap, we need alignment across all these areas—prescribers, health systems, and patients—working together to ensure consistent LDL-C testing, monitoring, and treatment intensification when necessary.

Dr. Turck:
Well, with that important call to action in mind, I want to thank Dr. Kari Uusinarkaus and Dr. Payal Kohli for sharing their insights on the pivotal role of LDL-C management for ASCVD risk reduction. Dr. Uusinarkaus, Dr. Kohli, it was great speaking with you both today.

Dr. Uusinarkaus:
Thanks for having us.

Dr. Kohli:
Thank you so much. And it's such an important conversation to talk about LDL. So I'm really glad to be here. Thanks again.

ReachMD Announcer:
This program was sponsored by Amgen. If you missed any part of this discussion or to find others in this series, visit *Heart Matters* on ReachMD.com, where you can Be Part of the Knowledge.

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