ONE MINUTE CARDIOLOGY

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CHOLESTEROL: NAVIGATING TREATMENT GUIDELINES

Since the American Heart Association and American College of Cardiology released their controversial cholesterol treatment guidelines late last year, other cardiac and lipid societies (such as the European Society of Cardiology and the National Lipid Association) have released differing recommendations, creating confusion within the medical community. So what is a reasonable approach for the practicing physician?

Acknowledging that there will be differing opinions among providers, my own approach is as follows:

Among adults, candidates for statin therapy are:

- Patients with known coronary, cerebrovascular, and/or peripheral arterial disease (collectively ASCVD).
- Patients with baseline LDL cholesterol >190 mg/dL despite lifestyle interventions
- Patients without ASCVD but with diabetes
- Patients without ASCVD or diabetes but significantly elevated calculated 10 year risk of cardiovascular events.

The last category is probably the most fluid as different organizations support different risk calculators/estimators, and different cut-offs for identifying high risk individuals. The ACC/AHA risk calculator is useful, but still does not take into account family history or lifestyle issues beyond smoking. However, I personally find it a good starting point, especially the lifetime risk projection portion which numerically illustrates the long term impact of aggressively modifying risk factors. The risk calculator is available as an app for mobile devices and can be downloaded for free.

Treatment should start with statins (with the exception of isolated marked hypertriglyceridemia where fibrates and omega-3 therapies may be more effective). Continuing to utilize LDL cholesterol as a measure of treatment effectiveness makes sense, and provides concrete goals for patients and providers. I follow a hierarchy of LDL goals:

- Attain LDL below 70 mg/dL in high risk individuals (known ASCVD, diabetes, high calculated risk); reduce LDL by at least half in those starting at LDL >190.
- If unable to attain above, goal becomes to prescribe highest available statin dose
- If unable to tolerate highest statin dose, goal becomes to place on highest tolerated dose

The use of non-statin therapies (such as ezetimibe, fibrates, bile acid sequestrants, and niacin) should be considered adjunct therapy in patients who are unable to get to goal with statin therapy alone or cannot tolerate statins. Note that recent data has raised questions regarding the benefits of non-statin lipid lowering therapies. It may be reasonable, therefore, to consider LDL <100 as adequate control before initiating non-statin pharmacologic agents.

Regardless of patient category or LDL goal, dietary modification is key to supporting therapy, reducing the amount of statin required, and to improving overall health. Avoiding simple and processed carbohydrates is imperative, as is increasing intake of naturally fiber-rich foods. Avoiding all trans fats, while moderating saturated fat intake is also helpful. In patients with marked hypertriglyceridemia, low carbohydrate diets can be especially effective. Every patient being considered for statin therapy should undergo a dietary survey and referral to a dietician if required.

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