

KEYING ON CHOLESTEROL REDUCTION

Number 59

June, 2001

NEW GUIDELINES

On May 16, 2001, the long-awaited update of the new guidelines from the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III or ATP III) were released.^{i ii} The new guidelines expand the indications for intensive cholesterol lowering therapy among those at risk for coronary heart disease (CHD) and will substantially increase the number of Americans being treated for high cholesterol, according to a statement from the National Heart, Lung and Blood Institute (NHLBI).

The NHLBI first convened the NCEP in 1985. This is the third set of guidelines since that time, and the first since 1993. These new guidelines suggest that a fifth of Americans should be considered for taking powerful cholesterol-lowering drugs (nearly tripling the number on treatment now) and that a huge chunk of the population should be getting serious about diet, exercise and weight loss. For many people, these guidelines will be a tough pill to swallow – literally.

This new update represents a standard of care that physicians are obliged to follow. These guidelines will help determine CHD risk more precisely and individualize therapy. Treatment is more effective when its intensity is matched to the level of risk. Physicians need to discuss these issues with every patient.

NCEP coordinator, Dr. James Cleeman states, “The ATP III approach looks at ‘overall’ risk for a heart attack, which means short- and long-term. That’s important because although risk typically increases with age, the foundation for heart disease is often laid in adolescence and early adulthood. So, Americans need to act now to prevent that future heart attack, or heart disease itself.”

KEY CHANGES

First, among patients without clinical CHD, emphasis is placed on estimating absolute risk. Patients with an absolute 10- year risk of > 20 % for developing CHD are considered very high risk (equal to that of patients with known CHD or other known atherosclerotic vascular disease) and are candidates for very aggressive treatment (**goal LDL-C of \leq 100mg/dL**). Patients with diabetes are also considered candidates for aggressive therapy (as per the 1999 American Diabetic Association guidelines), whether or not CHD is present, because their absolute risk of coronary events is also very high. Some feel LDL cholesterol of 100mg/dL is still too high. The New Targets Study is one of several projects that is looking at whether lowering LDL-C to \leq 75mg/dL will further reduce coronary events and mortality in people with known CHD. Many knowledgeable physicians sense that it will show an advantage over the current recommendation.

To better identify risk, the guidelines include a tool that predicts a person’s chance of having a heart attack within 10 years. ([Coronary Heart Disease Calculator is here](#)). This is a modification of previous versions in that it does not include diabetes because it is now considered a CHD equivalent instead of a risk factor. This “risk assessment tool” translates clinical conditions and lifestyle factors into an easy to understand category of risk. ATP III recommends use of the tool for patients with two or more risk factors.

The second important feature of the new ATP III Guideline is the inclusion of other lipid abnormalities that go beyond high LDL-C, which is the primary target of cholesterol-lowering therapy. The “metabolic syndrome”, a constellation of risk factors (hypertension, abdominal obesity, hyperglycemia, high triglycerides and low HDL-C) linked to insulin resistance has emerged as being as strong a

contributor to early CHD as cigarette smoking. It is important to recognize this syndrome and treat it with lifestyle changes.

Other non-LDL-related recommendations include raising the cutoff level for abnormally low HDL-C, where it becomes a major risk factor for CHD, from <35mg/dL to a new level of <40mg/dL. Incorporating triglycerides levels into treatment strategies when they exceed 200mg/dL was also recommended because of their significant link to the degree of CHD risk. In some patient populations (especially diabetics) treatment specifically designed to increase HDL-C and lower triglycerides is appropriate. In a report appearing in print within weeks of the newly released NCEP guidelines “ambitious” lipid and blood pressure lowering is proposed in type 1 diabetics (LDL-C <100, HDL-C >45, TG <150 and BP <120/80).ⁱⁱⁱ Though ambitious, these goals are achievable for most patients, given the efficacy of modern medications, particularly statins and ACE inhibitors.

The third important component of the new recommendations is targeted toward women and older adults. Although women tend to manifest CHD 10 to 15 years later than men, it is highly under appreciated that CHD is the leading cause of death among women in the US. The NCEP panel appropriately recommends that women and men be treated similarly and that hormone replacement therapy not be used as an alternative to cholesterol-lowering drugs, which have been found to reduce events in women with or without CHD. The NCEP panel recommends that older persons also receive aggressive drug therapy and make lifestyle modifications, with careful attention to individual circumstances because data from the major clinical trials have shown that older adults do benefit from treatment.

Lastly, to improve compliance, the NCEP guidelines recommend immediate addition of drug therapy in those hospitalized for major coronary events because that’s when they are most amenable to treatment. Prescribing cholesterol-lowering medication is recommended immediately rather than after a trial of dietary therapy, for high-risk patients with LDL-C >130mg/dL. The reality is if patients do not start treatment earlier, they are less likely to be started later. ATP III combines intensified use of nutrition, physical activity, and weight control into a new “Therapeutic Lifestyle Changes” (TLC) treatment plan and urges the use of case management by nurses and lipid clinics to improve adherence.

Despite some early lack of faith in the so-called “Cholesterol Hypothesis”, the evidence is now overwhelming that cholesterol-lowering therapy for both primary and secondary prevention improves outcome. Application of this evidence-based practice to the careful management of lipid disorders in adults with or at risk for CHD is an essential component of quality cardiovascular care. High quality lipid management is at least as important, if not more important, than interventional procedures, which are often considered a more valuable aspect of cardiac care by many physicians and patients. **Physicians are encouraged to implement the ATP III guidelines and audit themselves aggressively to ensure that their patients benefit from this lifesaving therapy.**

[ATP III AT-A-GLANCE: Quick Desk Reference Guide is here.](#)

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Heartbeat is available at <http://www.newsrounds.com/> under “Cardiology.”

ⁱ Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults. Executive Summary of the Third Report of the National Cholesterol Educational Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel or ATP III). *JAMA* May 16 2001; 285:2486-97.

ⁱⁱ Lauer MS, Fontaneros PM. Updated guidelines for cholesterol management. *JAMA* May 16 2001; 285: 2508-09.

ⁱⁱⁱ Orchard TJ et al. Lipid and blood pressure goals for type 1 diabetes. *Diabetes Care* June 2001; 24: 1053-9.