

National Cholesterol Education Program Guidelines Metabolic Syndrome

Pursuant to a congressional request, GAO reviewed the evidence from clinical trials that the National Heart, Lung, and Blood Institute (NHLBI) used to develop its National Cholesterol Education Program guidelines. GAO found that: (1) meta-analyses of trial data consistently show that cholesterol treated persons, regardless of their medical history, have significantly fewer non-fatal heart attacks than untreated persons; (2) treated persons also showed a reduction in the number of fatal heart attacks compared to the nontreated group, but the difference was not statistically significant except among those who had a history of coronary heart disease (CHD); (3) according to one trial, cholesterol treatment has not led to a reduction in deaths from all causes; (4) the increase in deaths from other causes shown in the trials occurred primarily among persons whose risk for CHD was lower, whose cholesterol was reduced less, or who used certain drugs; (5) the two trials that used newer cholesterol-lowering drugs confirmed the finding that the more cholesterol levels were lowered, the fewer coronary events occurred; (6) previous trials were not representative of the population at large, since they focused mainly on middle-aged white men at high risk for CHD; (7) several clinical trials now under way are designed to provide additional information about treatment outcomes regarding total fatalities, persons with a moderate short-term risk for a coronary event, and the longer-term effects of the newer drugs; and (8) these trials are large and open to a broader range of participants, but whether they will provide broader information will depend on their actual enrollments.

A review of the clinical trials evidence which was used to support the development of the National Cholesterol Education Program guidelines. Meant to provide evidence about the correlation between coronary heart disease (CHD) and high cholesterol levels and the need to create new guidelines for education and treatment in an effort to prevent cases of CHD. Findings of studies and clinical trials are included, along with charts and graphs which show the trends and correlations. The objectives, scope, and methodology used in each study is discussed.

Nutrition in the Prevention and Treatment of Disease, Fourth Edition, is a compilation of current knowledge in clinical nutrition and an overview of the rationale and science base of its application to practice in the prevention and treatment of disease. In its fourth edition, this text continues the tradition of incorporating new discoveries and methods related to this important area of research. Generating and analyzing data that summarize dietary intake and its association with disease are valuable tasks in treating disease and developing disease prevention strategies. Well-founded medical nutrition therapies can minimize disease development and related complications. Providing scientifically sound, creative, and effective nutrition interventions is both challenging and rewarding. Two new chapters on metabolomics and translational research, which have come to be used in nutrition research in recent years. The new areas of study are discussed with the perspective that the application of the scientific method is by definition an evolutionary process. A new chapter on Genetics and Diabetes which reviews the latest research on causal genetic variants and biological mechanisms responsible for the disease, and explores potential interactions with environmental factors such as diet and lifestyle. Includes all major "omics" – the exposome, metabolomics, genomics, and the gut microbiome. Expands the microbiota portions to reflect complexity of diet on gut microbial ecology, metabolism and health

This report presents the Nat. Cholesterol Ed. Program's (NCEP) updated recommendations for cholesterol testing and management. It focuses on the role of the clinical approach to prevention of coronary heart disease (CHD). This report, like the 2nd Report (ATP II), continues to identify low-density lipoprotein (LDL) as the primary target of cholesterol-lowering therapy. Since ATP II, a number of controlled clinical trials with newer cholesterol-lowering drugs have been reported. These trials demonstrated remarkable reductions in risk for CHD, in both primary and secondary prevention. Their results enrich the evidence base upon which the new guidelines are founded. Includes numerous tables and a 17-page Executive Summary.

Coronary heart disease (CHD) causes more deaths in the United States than any other. Those with known CHD are at increased risk for future coronary events, and high levels of low-density lipoprotein cholesterol (LDL-C) have been proven to hasten this process. Attainment of the National Cholesterol Education Program (NCEP) target LDL-C levels is a difficult undertaking. The purpose of this retrospective descriptive study was to assess adherence to NCEP Adult Treatment Panel III (ATP III) LDL-C guidelines of cardiologists as a whole and independently. Demographic variables were examined. This data collection and interpretation provides valuable information to develop strategies for improved attainment of these guidelines. The Quality Assurance Model Using Research was the framework of this study. Results indicated excellent adherence (93.8%) to NCEP ATP III LDL-C guideline in patients at high risk for CHD and fair (40.2%) adherence to NCEP ATP III LDL-C guideline in very-high risk for CHD patients.

Nutritional Pathophysiology of Obesity and Its Comorbidities: A Case-Study Approach challenges students and practitioners to understand the role of nutrients within the pathophysiology and development of disease, specifically those diseases which develop as a result of obesity. Through a case-based approach, the author presents complex clinical scenarios that require multiple treatment strategies, including targeted diet modification as an adjuvant to medical therapy. The book is divided into 9 modules and 5 appendices each of which covers aspects of obesity and its comorbidities. Within each module, a case is detailed with relevant history, laboratory and physical data, and follow-up information. Each case is followed by a resource section which delineates current understanding of the pathophysiology of the condition, as well as the actions of nutrients and food components shown to modify these processes. A "further readings" section cites current supporting clinical and basic literature as well as published guidelines. Explores how obesity is a key player in the pathophysiology of many diseases, including diabetes mellitus, chronic renal failure, hypertension, and atherosclerosis Integrates current understandings of the molecular mechanisms of nutrient action on the processes of disease development and treatment Presents students and early practitioners with complex clinical scenarios through a practical case-based approach

Advances in medical, biomedical and health services research have reduced the level of uncertainty in clinical practice. Clinical practice guidelines (CPGs) complement this progress by establishing standards of care backed by strong scientific evidence. CPGs are statements that include recommendations intended to optimize patient care. These statements are informed by a systematic review of evidence and an assessment of the benefits and costs of alternative care options. Clinical Practice Guidelines We Can Trust examines the current state of clinical practice guidelines and how they can be improved to enhance healthcare quality and patient outcomes. Clinical practice guidelines now are ubiquitous in our healthcare system. The Guidelines

