ANNALS OF FAMILY MEDICINE

Online Supplementary Material

Supplemental Appendix 1. Details of ATP III Risk Categorization

If patients developed diabetes or coronary heart disease and their risk category changed, then their low-density lipoprotein (LDL) cholesterol and non–high-density lipoprotein (non-HDL) (total cholesterol-HDL cholesterol) goals were changed for that time point. LDL cholesterol and non-HDL goals were defined using the conservative LDL and non-HDL levels consistent with both the ATP III 2001 and 2004 updated cholesterol guidelines. Furthermore, chart audits were based upon data from 1999-2004, at which point the 2001 ATP III standards of care were operative. Thus the LDL and non-HDL cholesterol goals for analysis for each category are (1) low-risk LDL <160 mg/dL (4.14 mmol/L), non-HDL <190 mg/dL (4.91 mmol/L); (2) moderate-risk LDL <130 mg/dL (3.36 mmol/L), non-HDL <160 mg/dL (4.14 mmol/L); (3) high-risk LDL <130 mg/dL (3.36 mmol/L), non-HDL <160 mg/dL (4.14 mmol/L); and (4) extremely high risk or CHD-equivalent LDL <100 mg/dL (2.59 mmol/L), non-HDL <130 mg/dL (3.36 mmol/L). A sensitivity analysis was performed using LDL goals of <70 mg/dL (1.81 mmol/L) for extremely high-risk patients and LDL goals of <100 mg/dL (2.59 mmol/L) for high-risk individuals who smoked or who had metabolic syndrome consistent with the updated ATP III 2004 guidelines.

Online Supplementary Material

Supplemental Appendix 2. Details of Practice and Patient Recruitment and Randomization

To obtain a representative sample of primary care physicians, letters were sent to all primary care physicians (N = 919) in southeastern New England that accepted a major insurance plan in September of 2003. More than 100 physicians responded affirmatively to this single mailing, from which 79 practices were assessed for eligibility (See Consort Diagram, Figure 1). Of the 79 practices, 69 were in close geographic proximity (50 miles) to the researchers, were confirmed primary care practices, and therefore were selected and stratified into large and small internal medicine and family medicine practices. From each of these strata, we randomly selected practices to meet our target of 30 practices. Of the 69 potentially eligible practices, 12 practices declined, 3 dropped out between enrollment and random allocation of the intervention, 11 were found to be ineligible, and 23 were interested but not approached because the randomization block had been filled.

Between September 2003 to October 2004, all adult patients (N = 51,078) from the recruited practices were sent a single letter by their primary care physician inviting them to participate in the project. Of those responding affirmatively, 5,218 participated in a telephone interview after obtaining informed consent. During this interview each patient participated in a survey that included questions on age, sex, race/ethnicity, marital status, smoking status, physical activity, height, weight, daily serving of fruits and vegetables, education level, income level, and type of medical insurance coverage. Of these eligible patients, 4,195 had their medical records abstracted, which included a minimum of 20 and a maximum of 120 charts per physician. There were 1,023 patients who participated in the telephone interview but did not have their charts audited because either the chart could not be found at the office or the maximum of 120 charts per physician had been reached. Ninety patients were excluded because they were no longer residing in the area, were pregnant, or had died or developed cancer or some end-stage disease for which cholesterol management would not be appropriate management, resulting in a total of 4,105 patient in our analysis.

Randomization

After chart baseline chart audits were performed, 15 practices were block randomized based upon the size of the practice (solo vs other) and specialty (family medicine vs internal medicine) and LDL cholesterol goal attainment at baseline (above or below median) by the study biostatistician using a random number generator for the allocation to usual care and 15 practices to a multimodal intervention. Practices and researchers were not blinded to the group assignment, as the study compared an active practice-based intervention vs usual care; however, patients were blinded to the allocation status of the practice, as were the abstractors and statistical analysts.