Physicians’ Knowledge and Attitudes about Coronary Heart Disease Secondary Prevention

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Abstract

We administered a knowledge and attitudes questionnaire regarding a technology assisted pharmacist mediated academic detailing intervention designed to improve physician adherence to coronary heart disease (CHD) secondary-prevention guidelines. Questionnaires were administered in two settings: an academic hospital and a community hospital. More knowledgeable physicians reported being more likely to prescribe a pharmacist’s recommended medication and to agree that lipid profiles should be automatically performed for inpatients with elevated troponin.

Introduction

Clinical reminders and academic detailing are effective methods for translating guidelines into practice.\textsuperscript{1} The Automated Guideline Monitor (AGM) was developed to improve adherence to established guidelines for secondary-prevention medications in CHD. We conducted a survey at an academic medical center (Barnes-Jewish Hospital, BJH) and a community hospital (Missouri Baptist Medical Center, MBMC) to measure physicians’ knowledge and attitudes toward the acceptance of technology-assisted pharmacist intervention.

Methods

In July 2004, a questionnaire was mailed to 865 physicians on staff at MBMC prior to randomizing physicians to the AGM intervention. In June 2006, an online questionnaire was e-mailed to 734 physicians who were on staff at BJH four years after implementing AGM. Items assessed:

- Knowledge of CHD-prevention guidelines (14 items)
- Attitudes toward performing automatic lipid profiles on inpatients with elevated troponin-I
- Openness to pharmacists’ recommendations for CHD-prevention medications
- Likelihood of prescribing CHD-prevention medications after pharmacist recommendation
- Gender, age, and specialty

Results

At MBMC, there were 245 respondents (82% men; 20% surgery, 10% cardiology, 36% general practice, and 34% various other specialties). At BJH, there were 237 respondents (63% men; 5% surgery, 8% cardiology, 62% general practice, and 25% various other specialties). Respondents’ mean age was 49 years at MBMC and 35 years at BJH. Age correlated negatively with the extent to which respondents would welcome a pharmacist’s therapeutic recommendation ($r = -0.166$, $p < 0.001$) and the likelihood of prescribing CHD-prevention medications based on a pharmacist’s recommendation ($r = -0.146$, $p = 0.002$). Knowledge correlated positively with the likelihood of prescribing CHD-prevention medications based on a pharmacist’s recommendation ($r = 0.194$, $p < 0.001$) and with the belief that the lab should automatically perform a lipid profile for inpatients with elevated troponin ($r = 0.196$, $p < 0.001$).

Mean knowledge scores did not differ significantly between MBMC (10.1) and BJH (10.4), but were higher for cardiologists and general-practice physicians than for surgeons and physicians in other specialties at both MBMC (11.9 vs. 11.0 vs. 8.7 vs. 9.3, respectively) and BJH (11.8 vs. 10.6 vs. 9.5 vs. 9.7, respectively). Respondents at BJH were younger than at MBMC ($p < 0.001$) and, after controlling for age in analysis of covariance, reported stronger agreement with welcoming pharmacists’ therapeutic recommendations ($p = 0.001$) and being more likely to prescribe treatment recommended by a pharmacist ($p = 0.008$).

Conclusions

Knowledge did not differ significantly by hospital. Younger physicians were more likely to welcome a pharmacist’s recommendation as well as to say they would prescribe recommended treatments. Between-hospital differences in these two attitudes may be due to previous exposure to the AGM at BJH prior to the survey or may be due to greater openness to new ideas of the younger physicians at BJH. Post-intervention surveys at MBMC will enable us to measure the effect of the AGM on physicians’ knowledge and attitudes.

References