

Physicians' Knowledge and Attitudes about Coronary Heart Disease Prevention Guidelines and Technology Assisted Interventions

Victor Pham^a,BS, Donna B. Jeffe^b, PhD, Laura A. Noiro^b,BS, Wm. Claiborne Dunagan^{a,b}, MD, Richard M. Reichley^a, RPh, and Thomas C. Bailey^{a,b}, MD

^aBJC HealthCare, Center for Healthcare Quality and Effectiveness and ^bWashington University School of Medicine, Department of Internal Medicine, St. Louis, MO

Abstract

BJC Healthcare is conducting a randomized controlled study to evaluate the impact of a technology-assisted pharmacist intervention on physicians' adherence to national coronary heart disease (CHD) prevention guidelines. We surveyed physicians to assess their knowledge of the guidelines and attitudes toward pharmacist-mediated interventions.

Introduction

Clinical reminders and academic detailing are effective methods for translating guidelines into practice.¹ Automated guideline monitor (AGM) was developed to improve adherence to established guidelines for secondary-prevention medications following acute myocardial infarction (AMI)¹ and was successfully deployed at an academic hospital.¹ We desired to implement AGM in the community-hospital setting and surveyed medical staff at one community hospital to determine their potential acceptance of this technology.

Methods

In July 2004, a 21-item questionnaire was mailed to 865 physicians in medical and surgical specialties who were on staff at Missouri Baptist Medical Center. Items assessed:

- Knowledge of CHD-prevention guidelines (True/False and multiple selection)
- Attitudes toward automatic lipid profiles on inpatients with elevated troponin-I within 24 hours of admission and toward physician openness to pharmacists' recommendations for CHD-prevention medications (5-point Likert scale "Strongly disagree" to "Strongly agree")
- Likelihood of prescribing CHD-prevention medications based on recommendation by a pharmacist (5-point scale from "Not at all likely" to "Extremely likely")
- Gender, age, and specialty

Results

Respondents included 245 physicians (82% men; 20% in surgery, 10% in cardiology, 36% in general practice, and 34% were in various other specialties. Mean age of respondents was 49 years (range 30-79). Respondents and non-respondents did not

differ significantly by age or gender. Physicians admitting an AMI patient last year were more likely than physicians not admitting an AMI patient to return a survey (51.4% vs. 22.5%; $p < .001$).

Respondents' mean knowledge score was 10 of 14 possible (range 0-14). Mean knowledge was higher for cardiologists and physicians in general-practice specialties compared with surgeons and physicians in other specialties (11.9 vs. 11.0 vs. 8.7 vs. 9.3, respectively; ANOVA $p < .001$). Knowledge was correlated with the likelihood of prescribing CHD-prevention medications based on a pharmacist's recommendation ($r = .221$, $p = .001$) and with the belief that the lab should automatically perform a lipid profile for inpatients with elevated troponin ($r = .209$, $p = .001$). Knowledge did not correlate with the extent to which respondents would welcome a pharmacist approach them with therapeutic recommendations ($r = -.049$, $p = .450$).

About half (51.7%) agreed or strongly agreed that the lab should automatically perform a lipid profile for inpatients with elevated troponin-I levels within 24 hours of admission; 57.8% agreed or strongly agreed that they would welcome having a pharmacist make therapeutic recommendations for CHD-prevention medications. Finally, 65.7% of the respondents reported being very likely or extremely likely to prescribe a pharmacist's recommended CHD-prevention medication.

Conclusions

Respondents were moderately knowledgeable of CHD-prevention guidelines and little more than half indicated agreement with automatic lipid profiles for inpatients with elevated troponin-I and with welcoming therapeutic recommendations by a pharmacist. A post-intervention survey will assess changes in physicians' knowledge, attitudes, and likelihood of prescribing medications based on a pharmacist's recommendation.

References

1. Noiro LA, Blickensderfer A, Christensen E, et al. Implementation of an automated guideline monitor for secondary prevention of acute myocardial infarction. Proc AMIA Symp. 2002;562-6.