Feedback to general practitioners increased prescribing of aspirin to patients with ischaemic heart disease


Objective
To determine whether feedback to general practitioners on their prophylactic aspirin prescribing increases aspirin prescriptions in patients with ischaemic heart disease.

Design
Randomised controlled trial with at least 3-month follow-up.

Setting

Patients
Patients with a coded diagnosis of ischaemic heart disease; previous myocardial infarction, angina, or revascularisation procedure; or use of nitrate by repeat prescription.

Intervention
14 practices were allocated to receive feedback on their prescribing of aspirin, and 14 practices were allocated to a control group that received no feedback. Data for prescribing of aspirin were collected at baseline and at follow-up. Feedback and educational input on the baseline data were given at a practice meeting lasting 1 hour (with postgraduate education credit). Practices were encouraged to audit certain patients, and support was given through medical audit advisory groups.

Main outcome measures
Prescribing of aspirin before and after intervention.

Main results
A total of 182,200 patients in the 28 practices were assessed. Computer searches identified a diagnosis of coronary heart disease or repeat prescriptions for nitrates, or both, in 2813 patients (1354 took aspirin). In practices that received feedback, prescribing of aspirin increased from 787 of 1646 patients (47.8%) before intervention to 1004 of 1725 patients (58.2%) after intervention; prescribing increased in the control-group practices from 567 of 1167 patients (48.6%) to 610 of 1220 patients (50%) (P < 0.001).

Conclusion
Feedback to general practitioners about their prophylactic aspirin prescribing increased the proportion of patients with ischaemic heart disease who received prescribed daily aspirin.

Sources of funding: Department of Health; Camden and Islington Health Authority; North Thames Research and Development; London Implementation Zone Educational Initiative.

For article reprint: Dr. P. McCartney, Health Promotion Sciences Unit, Department of Public Health and Policy, London School of Hygiene and Tropical Medicine, London WC1H 7HT, England, UK. FAX 44-171-374-9120.

Commentary
McCartney and colleagues show that feedback to general practitioners increases prescribing of prophylactic aspirin in patients with ischaemic heart disease. This study is generally applicable to all clinical practice settings in which compliance with evidence-based best practices (care guidelines) is important.

The authors randomised study practices using computerised record management systems to receive feedback on prescribing patterns for a select cohort. The study shows how computer-based records may be used to rapidly define a cohort for clinical investigation or follow-up. Although the study cohort was defined using the computer system, the intervention was delivered to the study groups with an educational session, and review of their own prescribing patterns was derived from the computer system.

The investigation shows that physicians who are being studied may alter their behaviour because they are being studied (Hawthorne effect), or the behaviour change may be ascribed to an underlying trend. For example, physicians in control-group practices increased their prescribing rate for aspirin in patients with ischaemic heart disease with no intervention. Nevertheless, the intervention group responded both to the single educational intervention and to review of their prescribing patterns derived from the computer.

The study shows that practitioners respond positively to educational feedback. It also raises interesting questions not addressed in the first report. Current trends toward “disease management” focus on objective, data-based feedback to practitioners on their practice patterns and their patients' outcomes. Would the observed response be similar if the physicians were shown data about their prescribing patterns alone without an educational intervention? Was the intervention aimed at individual prescribing patterns or at the group level? Given the intervention, why didn’t post-intervention prescribing patterns approach 100% in appropriate patients? Could the provider-specific prescribing pattern data and educational material be delivered electronically and generate a similar response at lower cost?

Despite these questions, this study shows the utility of appropriate educational feedback to general practitioners with data garnered from the computerised record.

Blackford Middleton, MD, MPH, MS: MedicaLogic, Inc. Hillsboro, Oregon, USA