Coaching by non-drug prescribing health professionals reduced total cholesterol concentrations in coronary heart disease


Q In patients with coronary heart disease (CHD), does a 6 month programme of coaching by non-drug prescribing nurses and dietitians reduce total cholesterol (TC) concentrations?

METHODS

Design: randomised controlled trial (Coaching patients On Achieving Cardiovascular Health [COACH]).

Allocation: concealed.

Blinding: blinded (outcome assessors).

Follow up period: 6 months.

Setting: cardiology departments of 6 university teaching hospitals in Melbourne, Australia.

Patients: 792 patients (mean age 59 y; 77% men) who were admitted to hospital for coronary artery bypass graft surgery; percutaneous coronary intervention; acute myocardial infarction or unstable angina and discharged on medical therapy; or coronary angiography with planned elective revascularisation. Exclusion criteria: inaccessibility by telephone, inability to speak or read English or travel to hospital for follow up visits, no fasting blood sample taken within 24 hours of admission, participation in another lipid study, or too ill to be interviewed in hospital.

Intervention: COACH programme (n = 398) or usual care (n = 394). Coaches were 2 dietitians and 4 nurses who telephoned patients within 2 weeks of randomisation and another 4 times during follow up. Coaches encouraged patients to visit their family physicians to obtain measurements of their risk factors and negotiated a plan of action to achieve target lipid concentrations (TC < 4.0 mmol/l) and reduce other coronary risk factors. Written reports of each coaching session were sent to patients after each call.

Outcomes: 6 month change in fasting serum TC concentrations from baseline. Secondary outcomes included high and low density lipoprotein cholesterol concentrations, blood pressure, body weight and body mass index (BMI), and dietary fat intake.

Patient follow up: 86% (intention to treat analysis).

MAIN RESULTS

Patients in the COACH group had greater decreases in TC concentrations than patients in the usual care group (table). The COACH programme also reduced low density lipoprotein cholesterol concentrations, weight, BMI, dietary fat intake, and anxiety more than usual care. Blood pressure increased in both groups but to a lesser extent in the COACH group (table).

CONCLUSION

In patients with coronary heart disease, telephone coaching by non-drug prescribing nurses and dietitians reduced total cholesterol concentrations and other coronary risk factors.

A modified version of this abstract appears in Evidence-Based Medicine.

Coaching in cardiovascular health v usual care for coronary heart disease*

<table>
<thead>
<tr>
<th>Outcomes at 6 months</th>
<th>COACH</th>
<th>Usual care</th>
<th>Difference in mean change (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cholesterol (mmol/l)</td>
<td>−0.54</td>
<td>−0.18</td>
<td>0.36 (0.20 to 0.52)</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>−0.5</td>
<td>−0.1</td>
<td>0.4 (0.1 to 0.5)</td>
</tr>
<tr>
<td>Total fat (g)</td>
<td>−15.3</td>
<td>−10.5</td>
<td>4.8 (0.3 to 9.3)</td>
</tr>
<tr>
<td>Systolic BP (mm Hg)</td>
<td>+0.1</td>
<td>+4.5</td>
<td>4.4 (1.8 to 7.0)</td>
</tr>
<tr>
<td>Diastolic BP (mm Hg)</td>
<td>+0.4</td>
<td>+2.8</td>
<td>2.4 (0.7 to 4.0)</td>
</tr>
</tbody>
</table>

*BMI = body mass index; BP = blood pressure. Values are mean change from baseline. CIs provided by author.