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Adherence to cardiac rehabilitation guidelines: a survey of rehabilitation programmes in the United Kingdom

Robert J P Lewin, Rosie Ingleton, Andrew J Newens, David R Thompson

Two key recommendations of recent guidelines are that cardiac rehabilitation requires the skills of a range of professionals and that the patient should receive a menu based programme after an individual assessment of needs. A previous survey of 25 cardiac rehabilitation programmes found little congruence with these guidelines and noted that physicians were particularly unlikely to be involved. We extended this inquiry to include all of the discoverable rehabilitation programmes in the United Kingdom.

Subjects, methods, and results

We identified 273 cardiac rehabilitation programmes through registers maintained by professional and charitable bodies and conducted a structured telephone interview with the “main coordinator” of 263 (96%) of these programmes between 1 April 1996 and 31 March 1997. If a respondent did not have the competence to answer a particular question the appropriate person was contacted. We asked each participant whether the rehabilitation team included anyone from a list of nine healthcare professions. To examine the use of assessment measures we asked which of a list of 15 health variables were assessed; whether this was with a validated assessment (a published scale or a standardised procedure with known properties) or an informal assessment (any other method); and whether the assessment was repeated either to check the patient’s progress or to audit outcome.

Most (184 (70%)) participants reported that five or more (mean 4.6; SD 1.6) healthcare professions were represented on the rehabilitation team; only 13 (5%) teams comprised members from only one profession. Nurses were represented in 234 (89%) teams, dietitians in 220 (84%), and physiotherapists in 223 (85%).
than half of the participants reported that their team included an occupational therapist (106 (40%)), a physician (103 (39%)), a psychologist (55 (21%)), a health promotion officer (43 (20%)), or a social worker or vocational counsellor (37 (14%)).

In a random sample of 120 programmes, further questions were asked about the degree to which each profession took part in the programme. For each profession previously mentioned the participant was asked whether that professional (a) gave talks to patients, or otherwise took part in the programme and (b) saw each patient individually. In only a small proportion of teams did a physician (19 teams (16%)), a psychologist (11 (9%)), a health promotion officer (7 (6%)), or a social worker or vocational counsellor (5 (2%)) give talks to patients or otherwise take part in the programme. It was rare for professions other than nurses (83 teams (69%)) and physiotherapists (79 (66%)) to see patients individually—occupational therapists (18 (15%)), dietitian (7 (6%)), physician (8 (7%)), health promotion officer (1 (1%)), social worker (1 (1%)).

The number and percentage of programmes that conducted validated or informal assessments and which repeated these assessments at any time is shown in the table. Blood pressure (204 programmes (78%)) and measurement of lipid concentration (195 (74%)) were most commonly available; however, the values for these were often taken from medical records during acute admission and were therefore of limited value to rehabilitation. The assessment of blood pressure was repeated in 59% of programmes and smoking in 74% (albeit with a validated measure in only 8 (3%) centres); none of the other measures were repeated in more than half of the programmes.

**Comment**

The findings confirm that adherence to the national guidelines is poor and that few physicians play an active part in rehabilitation programmes. There is little in the way of assessment (a prerequisite for a “menu driven” service) or audit; this is especially worrying as secondary prevention is an important goal of rehabilitation. Psychosocial factors were particularly poorly assessed despite the fact that it is well established that attention to these is one of the major goals of cardiac rehabilitation. Those responsible for commissioning a cardiac rehabilitation service should ensure that it is adequately resourced to allow programmes to be evidence based, menu driven, and properly audited.

**Contributors:** RJPL had the original idea for the study and coordinated the research. DRT, AJN, and RI contributed to the design of the study and to developing the telephone interview. All interviews were conducted by RI. The paper was written jointly by RJPL and DRT.

**Conflict of interest:** None.

**Funding:** No specific funding.

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**Table:**

<table>
<thead>
<tr>
<th>Factor assessed</th>
<th>Validated assessment</th>
<th>Informal assessment</th>
<th>Repeat assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure</td>
<td>204 (76)</td>
<td>0</td>
<td>156 (59)</td>
</tr>
<tr>
<td>Lipid</td>
<td>196 (75)</td>
<td>0</td>
<td>56 (21)</td>
</tr>
<tr>
<td>Electrocardiographic stress test</td>
<td>136 (52)</td>
<td>0</td>
<td>17 (6)</td>
</tr>
<tr>
<td>Exercise capacity</td>
<td>94 (36)</td>
<td>73 (28)</td>
<td>115 (44)</td>
</tr>
<tr>
<td>Weight</td>
<td>65 (25)*</td>
<td>98 (37)†</td>
<td>93 (35)</td>
</tr>
<tr>
<td>Symptoms of heart disease</td>
<td>2 (1)</td>
<td>101 (38)</td>
<td>94 (36)</td>
</tr>
<tr>
<td>Diet</td>
<td>0</td>
<td>72 (27)</td>
<td>34 (13)</td>
</tr>
<tr>
<td>Smoking</td>
<td>8 (3)</td>
<td>252 (96)</td>
<td>195 (74)</td>
</tr>
<tr>
<td>Knowledge of heart disease</td>
<td>0</td>
<td>31 (12)</td>
<td>0</td>
</tr>
<tr>
<td>Anxiety</td>
<td>70 (27)</td>
<td>11 (4)</td>
<td>77 (29)</td>
</tr>
<tr>
<td>Depression</td>
<td>70 (27)</td>
<td>10 (4)</td>
<td>77 (29)</td>
</tr>
<tr>
<td>Stress</td>
<td>8 (3)</td>
<td>34 (13)</td>
<td>26 (10)</td>
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<tr>
<td>Sleep</td>
<td>3 (1)</td>
<td>18 (7)</td>
<td>7 (3)</td>
</tr>
<tr>
<td>Sexual and personal relationships</td>
<td>0</td>
<td>18 (7)</td>
<td>7 (3)</td>
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<tr>
<td>Suitability for work</td>
<td>0</td>
<td>44 (17)</td>
<td>18 (7)</td>
</tr>
</tbody>
</table>

*Body mass index was calculated.
†Only weight was measured.