A nurse managed smoking cessation and relapse prevention programme did not reduce smoking rates at 12 months beyond rates achieved by usual care in women with cardiovascular disease


Is a nurse managed, cognitive behavioural, smoking cessation and relapse prevention programme effective for women admitted to hospital with cardiovascular disease (CVD)?

**METHODS**

**Design:** randomised controlled trial.

**Allocation:** (concealed)*.

**Blinding:** blinded (data collectors and outcome assessors).

**Follow up period:** 30 months.

**Setting:** 10 hospitals in the San Francisco Bay area, California, USA.

**Patients:** 277 women ≥18 years of age (mean age 61 y) who were admitted to a hospital with CVD or peripheral vascular disease, had smoked cigarettes in the month before admission, and were willing to make a serious attempt to quit smoking after discharge. Exclusion criteria included medical instability, alcohol or substance abuse, dementia, and schizophrenia.

**Intervention:** smoking cessation and relapse prevention intervention (brief physician counselling and usual care plus nurse managed, cognitive behavioural, relapse prevention intervention given before discharge, ≤5 structured telephone contacts 2–90 days after discharge, and relapse management counselling as needed) (n = 142) or usual care (brief physician counselling, a self help pamphlet, and a list of community resources) (n = 135).

**Outcomes:** point prevalence rates of non-smoking.

**Patient follow up:** 89% at 12 months (intention to treat analysis).

*Information provided by author.

**MAIN RESULTS**

The intervention and usual care groups did not differ for rates of 7 day point prevalence for non-smoking (based on self report of not having smoked in the past 7 days, which was verified by cotinine tests, family, or friends) (table).

**CONCLUSION**

In women admitted to hospital with cardiovascular disease, a nurse managed, cognitive behavioural, smoking cessation and relapse prevention programme did not reduce smoking rates at 12 months beyond levels achieved by usual care.

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**Nurse managed, cognitive behavioural, smoking cessation and relapse prevention programme (intervention) v usual care in women admitted to hospital with cardiovascular disease***

<table>
<thead>
<tr>
<th>Outcome at 12 months</th>
<th>Intervention</th>
<th>Usual care</th>
<th>RBI (95% CI)</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 day point prevalence for non-smoking</td>
<td>48%</td>
<td>42%</td>
<td>14% (4–14 to 51)*</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; RBI, NNT, and CI calculated from data in article.

**Commentary**

Restrictive “no smoking” policies in hospitals provide an opportunity for patients in hospital to quit smoking. A meta-analysis of 7 studies (2704 patients) evaluating the effectiveness of in-hospital smoking cessation interventions of a similar intensity concluded that interventions using both an intensive hospital component and follow up are effective for increasing smoking cessation rates.1 In contrast to the findings of the review by Rigotti et al, the trial by Sivarajan Froelicher et al found that the intervention was no more effective for improving smoking cessation rates than usual care in women admitted to hospital for CVD.

The participants were women from the San Francisco Bay Area, had a mean age of 61 years, and had middle to low incomes; findings may differ for other populations. The lack of a statistically significant finding may be because patients in the usual care group received brief counselling from a physician, provision of a pamphlet (Calling it Quits), and a list of community resources. It is possible that this “usual care” had a positive effect on smoking cessation rates among these women with CVD who were motivated to seriously attempt to quit smoking. This is a plausible explanation because mean quit rates at ≥6 months of follow up across the control groups of the review by Rigotti et al were 18% for all diagnoses and 37% for patients with cardiovascular disease, the 6 month quit rate in the study by Sivarajan Froelicher et al was 41%. Thus, although the results of this study do not seem to support the implementation of intensive hospital interventions with long term follow up provided by nurse experts in this patient population, they must be set in the context of the wider body of evidence, which suggests that smoking cessation interventions in patients with CV disease still confer benefits beyond the high quit rates usually seen in this group of patients.

Clinical implications exist for nurses who care for women who have been admitted to hospital with a diagnosis of CVD. Nurses in acute care cardiovascular settings can identify and briefly counsel women who have a desire to quit smoking and can mobilise available resources (eg, educational pamphlets, community resources, family support, and pharmacological therapies when appropriate). Discharge instructions should include a plan for follow up with patients’ primary healthcare providers or public health nurses and communication of the plan to providers.

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