EUROACTION

A care model to achieve “25 by 25”

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The Trilogy

Guidelines

Evaluation

Implementation

The Fifth Joint Task Force of the European Society of Cardiology and Other Societies on Cardiovascular Disease Prevention in Clinical Practice (constituted by representatives of nine societies and by invited experts)

Developed with the special contribution of the European Association for Cardiovascular Prevention & Rehabilitation (EACPR)†
Smoking Trends Across 3 Surveys

<table>
<thead>
<tr>
<th>Category</th>
<th>EAII</th>
<th>EAIII</th>
<th>EAIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported smoking*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cessation rate**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quit attempts***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of therapies****</td>
<td></td>
<td></td>
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</tbody>
</table>

* Self-reported smoking or CO in breath > 10 ppm
** Self-reported smoking or CO in breath > 10 ppm in patients smoking in the month prior to the index event
*** among current smokers (self-reported)
**** NRT, Bupropion or Varenicline
Prevalence of Smoking* by Gender and Age

EUROASPIRE

* Self-reported smoking or CO in breath > 10 ppm
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EUROACTION

8 countries 24 centres 8657 subjects
Ambulatory nurse-coordinated multidisciplinary approach

The CVP&R team with Dr Martini in Boldrini Hospital, Thiene, Italy
Family based lifestyle programme

Sweden

Poland
Lifestyle change

- No smoking
- Saturated Fat: <10% total Energy
- Fruits and vegetables: >400g/day
- Fish: >20g/day
- Oily Fish: >3 times/week
- 30-45 minutes of physical activity at 60–75% of the average maximum heart rate on four-five days of the week
- Weight reduction ≥ 5%
- Waist <94 cm in men and <80 cm in women
A CLUSTER RANDOMISED CONTROLLED TRIAL

Randomisation

INT

UC

Identification

2778 PATIENTS

1632 PARTNERS

2613 PATIENTS

1634 PARTNERS

Initial assessment

2179 PATIENTS

910 PARTNERS

580 SUB-SAMPLE

Intervention

PROGRAMME

16 week hospital

1 year primary care

One year assessment

1965 PATIENTS

626 PARTNERS

1999 PATIENTS

698 PARTNERS
Dietary and physical activity changes

- Intervention
- Usual Care

P = 0.009
P = 0.004
P = 0.91
P = 0.04

+ 36% (+20% to +51%)
P = 0.002
EUROACTION: coronary patients

Smoking cessation at one year in coronary patients who were smokers in the month prior to their event

+ 10% (−0.3% to +21%)

Reported smoking cessation was validated with breath CO ≤ 6ppm
Concordance for smoking habit in 645 couples recruited to programme

<table>
<thead>
<tr>
<th>Patient</th>
<th>Current</th>
<th>Ex</th>
<th>Never</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>E</td>
<td>O/E</td>
<td>O</td>
</tr>
<tr>
<td>Current</td>
<td>69</td>
<td>39.2</td>
<td>1.76</td>
<td>26</td>
</tr>
<tr>
<td>Ex</td>
<td>41</td>
<td>52.0</td>
<td>0.79</td>
<td>62</td>
</tr>
<tr>
<td>Never</td>
<td>23</td>
<td>41.9</td>
<td>0.55</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>132</td>
<td>380</td>
<td>645</td>
</tr>
</tbody>
</table>

O = observed     E = expected    P = 0.0001
Nagging doesn’t work!
# Concordance for quitting smoking

<table>
<thead>
<tr>
<th>Patients</th>
<th>Current smokers</th>
<th>16 weeks</th>
<th>( p )</th>
<th>Current smokers</th>
<th>One year</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline ( n )</td>
<td></td>
<td></td>
<td>Baseline ( n )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient only smoked</td>
<td>75</td>
<td>76</td>
<td>57</td>
<td>72</td>
<td>74</td>
<td>53</td>
</tr>
<tr>
<td>Both smoked</td>
<td>34</td>
<td>56</td>
<td>19</td>
<td>0.06</td>
<td>33</td>
<td>58</td>
</tr>
</tbody>
</table>

Reported smoking cessation was validated with breath CO \( \leq 6 \)ppm
EUROACTION: high risk individuals

General Practice
Non-smoking at one year in high risk patients
+ 0.8% (-13% to +15%)

\[ p = 0.9 \]
EUROACTION preventive cardiology programme *plus* intensive smoking cessation with *varenicline*
Randomised Controlled Trial

20 General Practices

Randomisation of individuals At consenting interview

INTERVENTION | USUAL CARE

**Initial Assessment**
- PATIENTS
- PARTNERS

**Intervention**
- PROGRAMME
- 16 weeks

**16 weeks assessment**
- PATIENTS
- PARTNERS
- PATIENTS
- PARTNERS
The EUROACTION PLUS preventive cardiology programme

A nurse led multidisciplinary family based programme for vascular patients, high risk individuals and their partners

- Focus on smoking cessation
- Optional Varenicline to assist quit attempts
- Comprehensive lifestyle and risk factor management

Diagram:
- Smoking cessation
- Healthy eating, Weight management
- Increasing Physical activity
Outcome Measures

• **Primary outcome:** 7-day point prevalence of abstinence validated by breath CO (< 10 ppm) at 16 weeks

• **Secondary outcomes:** (European goals)
  – Diet (Mediterranean diet score, food habit questionnaire)
  – Physical activity (7 day recall, pedometer, Chester step test, DASI and SF36 FLP)
  – BMI ≤ 25 kg/m$^2$, waist circumference < 94 cm men, 80 cm women
  – BP < 140/90 mmHg (<130/80 mmHg diabetes and or CHD)
  – TC < 4.5 mmol/l, LDL-C < 2.5 mmol/l
  – Glucose < 6 mmol/l

• Cardio-protective drug therapies
• Health Related Quality of Life (Euroqol EQ-5D, Anxiety and Depression HADS)
Recruitment

N=696 Eligible patients
- N=559 High-Risk patients
- N=137 Vascular patients

EA+ ARM
- N=350 patients
  - N=276 High-Risk patients
  - N=74 Vascular patients
- N=328 Baseline assessment
- N=313 Participated in EA+
- N=299 85.4% 16-weeks assessment

USUAL CARE ARM
- N=346 patients
  - N=283 High-Risk patients
  - N=63 Vascular patients
- N=288 Baseline assessment
- N=288 83.2% 16-weeks assessment

N=346 Primary endpoint  N=335 Primary endpoint
PRIMARY ENDPOINT
Smoking abstinence for last 7 days confirmed by breath CO <10ppm

Odds Ratio (95% CI) = 4.52 (3.20 to 6.39)
Smoking abstinence for last 7 days confirmed by breath CO <10 ppm

<table>
<thead>
<tr>
<th>Group</th>
<th>EA+</th>
<th>UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>51.2%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Vascular patients</td>
<td>48.6%</td>
<td>20.0%</td>
</tr>
<tr>
<td>High Risk patients</td>
<td>51.8%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Italy</td>
<td>51.9%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>57.8%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Spain</td>
<td>53.0%</td>
<td>17.1%</td>
</tr>
<tr>
<td>UK</td>
<td>42.6%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Male</td>
<td>53.2%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Female</td>
<td>48.2%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Aged &lt; 60 years</td>
<td>50.8%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Aged ≥ 60 years</td>
<td>51.5%</td>
<td>21.0%</td>
</tr>
</tbody>
</table>

Odds Ratio (95% CI)
Smoking abstinence for last 7 days confirmed by breath CO <10 ppm

Usual Care arm: 18.8% (N=335)
Intervention arm Not participated: 14.7% (N=34)
Intervention arm Participated Not completed: 16.7% (N=24)
Intervention arm Participated Completed: 62.4% (N=266)
Diet and Physical Activity

- Mediterranean Score ≥ 9: +15.0%, +6.7% to +23.2%
- Alcohol ≤ 30 g/day or oily fish ≥ 3 x/week: +6.3%, +0.1% to +1
- At goal for physical activity: +9.0%, +3.7% to +14.3%
- Chester step test METs max > 10/9 in m/w: +10.5%, +0.5% to +20.4%
HRQoL

- HADS Anxiety score < 8: Usual Care 73%, EuroAction+ 74%; +0.3% (−7.1% to +7.7%)
- HADS Depression score < 8: Usual Care 81%, EuroAction+ 81%; +0.8% (−5.8% to +7.4%)
- EQ-5D VAS score > 75: Usual Care 36%, EuroAction+ 48%; +12.0% (+3.8% to +20.2%)
Conclusions

• Intensive support from nurses in conjunction with effective pharmacological support is effective in helping willing high CVD risk smokers to quit
• Other healthy lifestyle changes are possible during a quit attempt to reduce total CVD risk
• High CVD risk quitters report improved quality of life
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EUROPEAN GUIDELINES
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