EUROACTION preventive cardiology programme plus intensive smoking cessation with varenicline

Catriona Jennings
Cardiovascular Research Nurse
Imperial College London

On behalf of the EUROACTION Plus Group

Independent Investigator Grant from Pfizer pharmaceuticals
Study Design

20 General Practices

Randomisation of individuals
At consenting interview

INTERVENTION  USUAL CARE

Initial Assessment

PATIENTS  PATIENTS

PARTNERS  PATIENTS

Intervention

PROGRAMME 16 weeks

PARTNERS  PARTNERS

16 weeks assessment

PATIENTS  PATIENTS

PARTNERS  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

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/m², 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

USUAL CARE ARM
N=346 patients
N=283 High-Risk patients
N=63 Vascular patients

N=328  Baseline assessment
N=313  Participated in EA+

N=299  85.4%
16-weeks 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>Category</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
- Usual Care: 37%
- EuroAction+: 52%
  +15.0%
  +6.7% to +23.2%

Alcohol ≤ 30 g/day or oily fish ≥ 3 x/week
- Usual Care: 80%
- EuroAction+: 87%
  +6.3%
  +0.1% to +1

At goal for physical activity
- Usual Care: 7%
- EuroAction+: 16%
  +9.0%
  +3.7% to +14.3%

Chester step test METs max > 10/9 in m/w
- Usual Care: 27%
- EuroAction+: 38%
  +10.5%
  +0.5% to +20.4%
Blood Pressure

SBP/DBP < 140/90 mmHg
130/80 mmHg
CVD/diabetes
+9.5%
+1.2% to +17.9%

Antihypertensive drug use

Usual Care
53%

EuroAction+
51%

-1.3%
-9.5% to +6.8%
HRQoL

- HADS Anxiety score < 8: 73% (Usual Care) vs 74% (EuroAction+)
  - Improvement: +0.3%
  - Range: -7.1% to +7.7%

- HADS Depression score < 8: 81% (Usual Care) vs 81% (EuroAction+)
  - Improvement: +0.8%
  - Range: -5.8% to +7.4%

- EQ-5D VAS score > 75: 36% (Usual Care) vs 48% (EuroAction+)
  - Improvement: +12.0%
  - Range: +3.8% to +20.2%
Conclusions

- Intensive support from nurses was effective in helping high CVD risk smokers to quit with optional use of varenicline (more successful than usual care)
- The quitters made other lifestyle changes at the same time and therefore reduced their CVD risk
- Health related of quality life improved on the programme
Acknowledgements

• Professor David Wood and the Coordinating Centre Staff at Imperial College London
• Professor Dirk De Bacquer at the Statistical Centre, University of Ghent
• Smoking Cessation specialists
  – Dr. Serena Tonstad, Oslo University Hospital, Oslo, Norway
  – Professor Peter Hajek and Ronnie Troughton, Tobacco Dependence Research Unit, The Royal London Hospital
• National Coordinators and country teams
  – Professor Arno Hoes and team, University Medical Centre Utrecht
  – Professor Jose de Velasco and team, University General Hospital of Valencia
  – Professor Silvio Brusaferro and team, University Hospital "Santa Maria della Misericordia", Udine, Italy
Special thanks....

To all the GPs, Practice managers, data entry staff, administrator etc who did the field work and especially to the nurses (listed below) in each country who worked so hard and did a great job

**UK**
- Tracey Nolan
- Rosie Dada
- Michaela Nuttall and team

**Netherlands**
- Judith Lurvink
- Eveline Fassaert
- Brenda Baar

**Spain**
- Vanessa Priego
- Cristina Tirado
- Clara Bisquert Lloret, Silvia Gimeno Martos

**Italy**
- Tilla Gurisatti
- Sabrina Scotti