EUROPEAN CARDIOLOGY: Challenges and Opportunities for the next decade

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President European Society of Cardiology
Declaration Of Interest 2010

- **Speaker:**
  Servier, Menarini, Sanofi, Boehringer Ingelheim, Astra Zeneca, Glaxo SmithKline

- **Consultant / Trial Committee Member:**
  Servier, Johnson & Johnson, Sanofi, Nile Therapeutics, Bristol Myers-Squibb
European deaths by cause in men

Figure 1.2a Deaths under 75 by cause, men, latest available year, Europe
European deaths by cause in women

Figure 1.2b  Deaths under 75 by cause, women, latest available year, Europe

- CHD 18%
- Stroke 15%
- Other CVD 10%
- Stomach cancer 2%
- Colo-rectal cancer 3%
- Lung cancer 3%
- Breast cancer 5%
- Other cancer 14%
- Respiratory disease 5%
- Injuries and poisoning 8%
- Other causes 17%
EUROPEAN CARDIOLOGY
The Context (I)

- Heterogeneity of risk.
- Heterogeneity of access to procedures.
Male CHD death rates
35 – 74 years
Female CHD death rates
35 – 74 years
10 year risk of fatal CVD

- Gender
- Smoking status
- Age
- Systolic blood pressure
- Total cholesterol

Based on Conroy et al, Eur Heart J, 2003, 24:987-1003. Copyright © 2003 European Society of Cardiology. All rights reserved.
PCI Substrata 1992 - 2008

- PCI for ongoing MI
- Multivessel PCI
- Ad hoc PCI
- Total PCI

acute MI
Stenting in Europe
(Registry of the European Society of Cardiology)
National Differences in ICD implantation

Defibrillators - Units per million inhabitants

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Source population data: OECD
Units - Eucomed based on reports from major manufacturers
* Europe represents total of listed countries

www.escardio.org
National Differences in ICD implantation

CRT-D - Units per million inhabitants

Source population data: OECD
Units - Eucomed based on reports from major manufacturers
* Europe represents total of listed countries

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www.escardio.org
Europe: GDP/Health expenditure %

<table>
<thead>
<tr>
<th>Country</th>
<th>Total expenditure on health as % of GDP</th>
<th>GDP/Head ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>10.3</td>
<td>45,181</td>
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<tr>
<td>Croatia</td>
<td>7.7</td>
<td>14,414</td>
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<tr>
<td>France</td>
<td>10.5</td>
<td>41,511</td>
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<td>Germany</td>
<td>10.6</td>
<td>40,415</td>
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<tr>
<td>Greece</td>
<td>9.9</td>
<td>33,433</td>
</tr>
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<td>Norway</td>
<td>9.7</td>
<td>83,922</td>
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<td>Russia</td>
<td>6</td>
<td>9,075</td>
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<tr>
<td>Spain</td>
<td>8.1</td>
<td>32,066</td>
</tr>
<tr>
<td>Turkey</td>
<td>7.7</td>
<td>9,629</td>
</tr>
</tbody>
</table>
Substantial investment in sophisticated devices / procedures.

Lack of implementation of simple prevention measures.
EUROASPIRE I, II and III

K Kotseva, et al Lancet 2009; 373; 929-940
Prevalence of smoking, obesity* and central obesity**

*Body mass index ≥ 30 kg/m²
**Waist circumference ≥ 88 cm for women and ≥ 102 cm for men
Prevalence of raised blood pressure*, elevated TC** and LDL-C***, and self-reported diabetes mellitus

*SBP/DBP ≥ 140/90 mmHg for non-diabetics or ≥ 130/80 mmHg diabetics
** TC ≥4.5 mmol/l; *** LDL-C ≥4.5 mmol/l
Cardiovascular Protective Drug Therapies

Survey 1
- Antiplatelets: 80.8%
- Beta-blockers: 56.0%
- ACE/ARB's: 31.0%
- Statins: 18.1%

Survey 2
- Antiplatelets: 83.6%
- Beta-blockers: 69.0%
- ACE/ARB's: 49.2%
- Statins: 57.3%

Survey 3
- Antiplatelets: 93.2%
- Beta-blockers: 85.5%
- ACE/ARB's: 74.5%
- Statins: 87.0%
EUROASPIRE III Hospital
8966 coronary patients

K Kotseva, et al Lancet 2009; 373; 929-940
Attendance to a CPR programme among all patients* by country

- Lithuania: 86%
- Ireland: 76%
- Belgium: 65%
- Slovenia: 57%
- Hungary: 52%
- Germany: 52%
- Poland: 49%
- The Netherlands: 47%
- Italy: 46%
- Czech Republic: 42%
- Croatia: 37%
- Latvia: 35%
- United Kingdom: 35%
- Finland: 33%
- France: 29%
- Bulgaria: 23%
- Romania: 14%
- Russian Federation: 4%
- Turkey: 3%
- Cyprus: 2%
- Spain: 0%
- Greece: 0%

* Attending at least one session

All patients: 36%

Men 37%
Women 34%

CPR attendance rate if advised to follow = 81%
EUROASPIRE III Coronary patients

* WC > 94 cm (men); > 84 cm (women)

EUROASPIRE III Coronary patients

**SBP/DBP ≥ 140/90 mmHg for non-diabetics or ≥ 130/80 mmHg for diabetes
****Self-reported and/or glucose ≥ 7.0 mmol/l; **** in patients with self reported diabetes

EUROASPIRE III PRIMARY CARE
4366 high risk individuals
Advise to follow programme for lifestyle & risk factor management*

* Over the last 3 years

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Italy</td>
<td>99.5%</td>
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<tr>
<td>Latvia</td>
<td>21.7%</td>
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<tr>
<td>UK</td>
<td>11.4%</td>
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<tr>
<td>Poland</td>
<td>9.2%</td>
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<tr>
<td>Germany</td>
<td>8.9%</td>
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<td>Slovenia</td>
<td>6.7%</td>
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<td>3.1%</td>
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<td>Finland</td>
<td>1.0%</td>
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<tr>
<td>Spain</td>
<td>0.4%</td>
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</table>

All patients: 17.1%

Men 20.1%, Women 15.9%
EUROASPIRE III PRIMARY CARE

* WC > 94 cm (men); > 84 cm (women)

K Kotseva, et al EJCP&R 2010
**SBP/DBP ≥ 140/90 mmHg for non-diabetics or ≥ 130/80 mmHg for diabetes

****Self-reported and/or glucose ≥ 7.0 mmol/l; **** in patients with self reported diabetes

K Kotseva, et al EJCP&R 2010
WHY IS IT SO?

- Different stakeholders with different perspectives:
  - Hospitals (fee for service) vs social security systems.
  - Private vs Public systems.

- Lack of awareness / interest for health economics.

- Lack of collaboration between professionals: GPs, dietitians, nurses, rehabilitation, cardiologists (… …)
EUROACTION
ESC demonstration project in preventive cardiology

Proportions of patients achieving the European targets for a healthy diet

Hospital

- Saturated fat < 10% of total energy: Intervention 55%, Usual Care 40%, p = 0.009
- Fruits and vegetables > 400 g/day: Intervention 72%, Usual Care 35%, p = 0.004
- Fish > 20 g/day: Intervention 55%, Usual Care 54%, p = 0.91
- Oily fish > 3 times/week: Intervention 16%, Usual Care 8%, p = 0.04

General Practice

- Fruits and vegetables > 400 g/day: Intervention 78%, Usual Care 39%, p = 0.005
- Fish > 20 g/day: Intervention 56%, Usual Care 46%, p = 0.26
- Oily fish > 3 times/week: Intervention 11%, Usual Care 6%, p = 0.13
Proportion of patients achieving the European target for blood pressure

Hospital
+ 10% (+ 0.6% to + 20%)

P = 0.04

General Practice
+ 17% (+ 2% to + 32%)

p = 0.03
Nurse-coordinated multidisciplinary, family-based cardiovascular disease prevention programme (EUROACTION) for patients with coronary heart disease and asymptomatic individuals at high risk of cardiovascular disease: a paired, cluster-randomised controlled trial

D A Wood, K Kotseva, S Connolly, C Jennings, A Mead, J Jones, A Holden, D De Bacquer, T Collier, G De Backer, O Faergeman, on behalf of EUROACTION Study Group*

Summary

Background Our aim was to investigate whether a nurse-coordinated multidisciplinary, family-based preventive cardiology programme could improve standards of preventive care in routine clinical practice.

Methods In a matched, cluster-randomised, controlled trial in eight European countries, six pairs of hospitals and six pairs of general practices were assigned to an intervention programme (INT) or usual care (UC) for patients with coronary heart disease or those at high risk of developing cardiovascular disease. The primary endpoints—measured at 1 year—were family-based lifestyle change; management of blood pressure, lipids, and blood glucose to target concentrations; and prescription of cardioprotective drugs. Analysis was by intention to treat. The trial is registered as ISRCTN 71715857.
ARE THERE SOLUTIONS?

1. Invest in prevention.

2. Create alliances with sister societies for the management of chronic diseases.

3. Create alliances with other professionals:
   - GPs
   - Nurses

Declining medical demography.

Obesity in the world

The Global Obesity Problem

An obese adult is classified as having a Body Mass Index equal to or greater than 30

Diabetes Mellitus: a pandemic

- North Americas: 28.3% (2007) to 40.5% (2025)
- South and Central Americas: 16.2% (2007) to 32.7% (2025)
- Europe: 53.2% (2007) to 64.1% (2025)
- Middle East: 18.7% (2007) to 44.5% (2025)
- South East Asia (India): 46.5% (2007) to 80.3% (2025)
- Africa: 10.4% (2007) to 18.7% (2025)
- Asia & Australia (China): 67% (2007) to 99.4% (2025)
ESC ROAD MAP
2010-2012

➢ Priority to education.

➢ Develop research activities.

➢ Improve our visibility.

➢ Adapt to a changing environment.
Priority to Education

- Remote distance courses webcasts / webinars.
- Workshops with National Societies.
- Homogenous validation procedures.
EDUCATION IN CARDIOLOGY
New initiatives

- Education in Cardiology
- Education online
- Professional Standards
- Educational courses
- Guidelines Implementation
- Tracking platform for CME and Certification purposes
- Content Portal mapped out on curricula
- Emphasis on distance learning
• New initiatives aimed at bringing ESC scientific content closer to ESC Members
  – Distance learning developments
  – Local events
  – Guidelines implementation initiatives
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**TOTAL GUIDELINES**

- From Sept. 2010 to Aug. 2011: 5
- From Sept. 2011 to Aug. 2012: 4
- From Sept. 2012 to Aug. 2013: 4
Develop Research Activities

- ESC Research Foundation.
- Euro Observation Research Project.
- Research Grants.
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</table>
Improve our visibility

- Web site
- Press / Media
- EU Lobbying
ESC E-communication
ESC web site traffic in 2010

- Unique visitors: ~ 100,000 per month (90,000 in 2009)
- Visits: ~150,000 per month
- Page views: ~ 1 million per month
- Total visits: 2,005,691
- Page views: 11,815,673
- ~ 7,000 web pages
ESC Web Site priorities 2011

Attract and promote scientific content

Improve user friendliness and usability

Eva Swahn, ESC Vice-President, Communication
Projects 2011-2012

- Search Engine and journal content
- News and targeted audiences: cardiologists of tomorrow
- ESC Congress goes « Mobile »
- Support Education activities, « Global scientific Initiatives »
- More visibility for National Societies
- Working Group content and congresses promotion
- Networking tool
- Association projects: EAE 3D Echo Box update, ...
Alliance for Biomedical Research in Europe
Develop our International Influence
Global Scientific Activities

- China
- Brazil
- Saudi Arabia
- Mexico
- Asia Pacific (Malaysia)
Anticipate a changing environment

- Change in industry support. Towards « global packages » of scientific services and unrestricted grants: a Society of members vs clients.

- Relationship between ESC and Industry.
Guideline Format Preference

In what format do you prefer to receive this kind of information or support?

<table>
<thead>
<tr>
<th>Format</th>
<th>% Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Young: 20%</td>
</tr>
<tr>
<td>Web</td>
<td>Young: 70%</td>
</tr>
<tr>
<td>Email</td>
<td>Young: 10%</td>
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<tr>
<td>Colleagues</td>
<td>Private practice: 5%</td>
</tr>
<tr>
<td>Other</td>
<td>Private practice: 5%</td>
</tr>
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</table>
LOOK TOWARDS THE FUTURE

- Attract the young « All Electronic » generation
  → Web / distance learning activities.

- Create alliances between all professionals
We are the voice of cardiac patients in ESC Countries.