5. Where should programmes be offered?

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for the

Fifth Joint European Societies’ Task Force on Cardiovascular Disease Prevention in Clinical Practice
Declaration of Interest

There is no conflict of interest regarding this presentation!
Key message:
- Cardiovascular Disease (CVD) is the single most important cause of death for both men and women and can often be prevented!

- CVD prevention is a life-time approach
We cannot rely on our health system alone; ‘We need to create **healthy communities** and incorporate prevention into our daily lives as health care providers and citizens.”

* Brown JR, O’Connor GT. CHD and prevention in the US. *NEJM* 2010;362:2150-2153.
Question 6: Where should CVD prevention programmes be offered?

legislative and other activities supporting prevention:
Restricting the use of trans fatty acids*
Protecting non-smokers from ‘second-hand’ smoke**, Banning tobacco commercials, Creating programmes to increase risk factor awareness (non-governmental organizations and medical societies)***.

Most important new information
• Legislative Smoking bans for public places
• decrease the incidence of Myocardial Infarction.

Prevention of CVD is a lifetime approach! Starting ideally before birth by educating young parents, 
- pre-school age (kindergarten) 
- throughout the advancing grades of the school system.*

Emphasis on
- the pleasures of a healthy nutrition and 
- feelings of wellbeing associated with physical activity.*
-- rather than focusing on the prevention of disease.

Strong recommendation, evidence level B

* Common sense and observational data!
- no randomised studies!

*Weintraub et al  Circulation 2011;124:967–990
European Heart Journal 2012;33;1635–1701
**Question 6: Where should CVD prevention programmes be offered?**

CVD-Prevention should be offered:

- in primary care by nurses
- in General Practice
- In the Cardiologists Office
- In Primary care-based self-help programmes
- Hospital-based programmes
- Specialized Prevention Centres
- Non-governmental Organization Programmes
- Actions at the European political level
5.1 Role of nurses

EUROACTION: A family-centred approach in different healthcare systems in eight countries across Europe: Denmark, France, Italy, the Netherlands, Poland, Spain, Sweden, and the UK
- more than 8500 patients—
  - Half with CAD (recruited in hospitals)
  - Half high risk persons (from GP practices)
outcomes compared with "usual-care" patients.

eight visits with a multidisciplinary team, attendance at a group workshop and supervised exercise class over a 16-week period.

European Heart Journal 2012:33;1635–1701
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5.1 Role of nurses

EUROACTION:
→ led to significant improvements in
- BP control and
- healthier lifestyle in intervention patients and their partners.

The programme was feasible
- in hospitals,
- in general practice,
- outside of specialist centres,
- in 8 different healthcare systems across Europe

... more effective than usual care in reducing cardiovascular risk, and can be adapted to a variety of healthcare settings.

5.1 Role of nurses

Most important new information

Nurse-led clinics or nurse-coordinated multi-disciplinary prevention programmes are more effective than usual care in reducing CV risk, in a variety of healthcare settings.


5.1 Role of nurses

Remaining gaps in the evidence

- The optimal (and most cost-effective) intensity and duration of individual components of the intervention need to be established to achieve sustained risk reduction in patients at high risk or with vascular disease.
- Research is also needed to determine the knowledge and skills needed for effective prevention programmes, and the education required to ensure competence.
5.2 General Practice

The physician in general practice is the key person to initiate, coordinate and provide long-term follow-up for CVD prevention.

- In most countries, General Practitioners deliver > 90% of consultations and provide most public health medicine (preventive care, disease screening, chronic disease monitoring, and follow-up).

They could have a unique role in identifying individuals at risk of - but without established CVD and assessing their eligibility for intervention based on their risk profile - but ....
5.2 General Practice

...74% rarely or never used CVD prediction rules, due to fears of
- oversimplification of risk assessment (58%)
- overuse of medical therapy (54%).

More than half of the physicians (57%) believed that the
numerical information resulting from prediction rules is frequently
unhelpful for clinical decision-making.

Question 6: Where should CVD prevention programmes be offered?

5.2 General Practice

Patients may have a limited understanding of risk tables and how risk relates to disease development.* Development of patient educational materials may increase patient understanding, and this may also facilitate physician–patient communication.**

The length of routine patient consultations, which provides little time for discussion, is a barrier to conducting risk assessments,*** which however are needed only once every couple of years! Resource spent after risk assessment is more likely to reduce future health care costs (Evidence level C).

*** Marshall et al Inform Prim Care 2006;14:85–92
Question 6: Where should CVD prevention programmes be offered?

Most important new information
- Barriers to implementation of risk-adjusted prevention are multiple:
  - Risk scoring is considered to be time consuming, simplifying a complex situation, and may result in overmedication.
  - Resource spent after risk assessment is more likely to reduce future healthcare costs.
Remaining gaps in the evidence
- Application of risk scoring in general practice vs. individual risk factor treatment has not been shown to reduce hard events – but has not been tested.
- The use of risk scoring based on electronic patient records is promising, but needs to be tested in a general practice setting.
Question 6: Where should CVD prevention programmes be offered?

5.3 Role of the Cardiologist

Key messages:
The practising cardiologist should be the advisor in cases
- with uncertainty over the use of preventive medication
- when usual preventive options are difficult to apply, e.g.: 
  - balancing hormone replacement therapy with symptoms and global CV risk.
  - treatment with antiaggregatory drugs after PCI in patients with an additional need for oral anticoagulation (e.g. in chronic AF or in patients with mechanical heart valve prostheses).
5.3 Role of the Cardiologist

The practising cardiologist should regularly review the discharge recommendations of the hospital after a cardiac event or intervention and ensure that, at given intervals, treatment goals are reached. This approach has a significant impact on mid-term prognosis.

Bramlage et al  Heart 2010;96:604–609
Chow et al  Circulation 2010;121:750–758
Question 6: Where should CVD prevention programmes be offered?

5.3 Role of the Cardiologist

Most important new information
-The higher the level of care based on guidelines and performance measures, the greater the impact on prevention and recurrent events.

Bramlage et al  Heart 2010;96:604–609
Chow et al   Circulation 2010;121:750–758
5.3 Role of the Cardiologist

Remaining gaps in the evidence
- The positive impact of electronic records on CVD prevention through improved communication between different healthcare providers needs to be tested and balanced against the danger of losing control of data confidentiality.

Bramlage et al Heart 2010;96:604–609
Chow et al Circulation 2010;121:750–758
5.4 Primary care-based self-help programmes

Self-help Programmes increase the awareness of the need for risk factor management, maintaining physical fitness, diligent self-management of oral anticoagulation.

Most important new information:
- Self-help groups increase independence and improve quality of life.
  ➔ IIa; B Matchar et al N Engl J Med 2010;363:1608–1620

Remaining gaps in the evidence:
- There are no randomized studies to evaluate the effect of self-help groups on hard cardiovascular endpoints.
5.5 Hospital-based programmes – hospital services

5.5.2 Most important new information
- Patients discharged on less than optimal medical therapy have a worse 1-year prognosis.\(^{555}\)

- The introduction of quality-improvement programmes improves discharge recommendations \(^{560}\).


5.5 Hospital-based programmes – hospital services

Remaining gaps in the evidence
- Still missing is evidence that efforts for optimal treatment at hospital discharge result in better long-term maintenance of secondary prevention efforts and greater reduction in cardiac events.
- Appropriately timed booster interventions may also be necessary.
Question 6: Where should CVD prevention programmes be offered?

5.6 Hospital-based programmes – specialized prevention centres

5.6.1 Cardiac rehabilitation centres help improve lifestyle and lower cardiac event rates

5.6.2 Cardiac rehabilitation is cost effective and prolongs life


565. Giannuzzi et al ...Results of the GOSPEL study, a multicenter RCT Arch Intern Med 2008;168:2194-2204.
5.6 Hospital-based programmes – specialized prevention centres

Recommendations

All patients requiring hospitalization or invasive intervention after an acute ischaemic event should participate in a cardiac rehabilitation programme to improve prognosis by modifying lifestyle habits and increasing treatment adherence.

Class I Recommendation; Evidence level B
Question 6: Where should CVD prevention programmes be offered?

Most important new information
• Cardiac rehabilitation is cost effective in reducing risk of cardiovascular events.

Remaining gaps in the evidence
• The optimal length of a cardiac rehabilitation programme remains unknown.
5.7 Non-governmental organization programmes

Key message:
• Non-governmental organisations are important partners to health care workers in promoting preventive cardiology through advocacy, networking, patient education and patient support,

- The European Heart Network (EHN) is a Brussels-based alliance of heart foundations and like-minded non-governmental organizations throughout Europe, with member organizations in 26 countries.
5.8 Action at the European political level

Key message:

The **European Heart Health Charter** marks the start of a new era of political engagement in preventive cardiology.

To impact political decision-making on EU and national levels, it is necessary to build strong alliances with other non-governmental health organizations, primarily the EHN, other medical societies but also local health authorities and the EU.
In June 2009, the European Chronic Disease Alliance was established: representing 10 not-for-profit European organizations with 100,000 health professionals. Four RFs were identified for joint actions: Tobacco, Nutrition, Alcohol consumption, Physical Inactivity. It addresses all major non-communicable chronic diseases, including heart disease, stroke, hypertension, diabetes, kidney disease, cancer, respiratory disease, and liver disease.

It is hoped that a common voice may have a stronger impact on political decisions involving public health.
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Summary

Preventive efforts are necessary from the earliest sign of life to senescence at multiple levels to counteract the multiple temptations of an unfavourable lifestyle and minimize CV-risk. But also hospital-based physicians have to adhere to guideline-adjusted recommendations at discharge after a cardiac event or intervention to support preventive efforts. The emphasis on population-wide risk factor control – even by means of legislation – has the potential of a much larger impact on public health and healthcare savings than does the treatment of people at high risk – alliances have to be formed between different subspecialties to improve the health of the general population!
The new ESC Guidelines on Cardiovascular Disease Prevention in Clinical Practice

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I thank you for your attention!!