

# Gender specific mechanisms in coronary artery disease in Europe (GENCAD)

#### **Aims**

As with other frequent diseases, coronary artery disease (CAD) differs significantly in women and men throughout Europe, in age distribution, prevention, clinical manifestation, as well as response to therapies and outcomes. However, the interaction of biological differences between women and men and the sociocultural determinants of health are not sufficiently understood. The awareness and subjective perception of women and men differs, as well as their interaction with health care systems.

#### The GENCAD project aims to:

- Increase knowledge on sex and gender differences in CAD
- Improve awareness
- Develop facts and factsheets
- Disseminate throughout Europe

#### State-of-the-art study

GENCAD aims to analyse existing knowledge about gender differences in CAD risk factors, disease mechanisms, clinical manifestations, treatment, access to health care, and management and outcomes by:

- After screening more than 30.000 references, we found more than 1000 references relevant for gender in CAD. They have been analysed in detail and included into factsheets.
- European databases do not yet include enough gender relevant facts, e.g. gynaecological or andrological history, information on sexual dysfunction, number of children in women and men, etc.

#### **Awareness study**

## Analysis of general public in 6 countries, 3000 persons, telephone survey, revealed:

- Women concede less relevance to heart disease and do not identify heart disease as a leading cause of death
- Stress is the most cited risk factor. Knowledge on smoking, exercise, diabetes as risk factores needs improvement
- Almost 50% will not call emergency services in case of heart attack, as a first reaction
- Less than half of participants are well informed on CVD
- Mass media and internet are the two main sources of information on CVD

#### Analysis in HC professionals, internet survey, in all countries

- Role of CAD as leading cause of death in women and men is well appreciated
- Knowledge on lack of exercise, and diabetes needs improvement
- Role of exercise testing and imaging in men and women needs to be clarified
- Understanding of sex differences in therapy needs improvement
- Patient information campaigns must be improved regarding the inclusion of women and men

### Dissemination

The objective of our conferences is to communicate the GenCAD results to the health care community in all member states. We are currently involved and presented and discussed at the following major European congresses:

EUPHA 2015, IGM 2015, OSSD 2016, ECIM 2017, EUPHA 2017, Europeans student conference 2017 and 2018, OSSD 2017, World Health summit 2017 and 2018, Europrevent 2018, IGM 2019; Gender Summit 2017 and 2018, as well as many others. Furthermore, we are also invovled in disseminations plans with the following organisations:

EUPHA, ASPHER, European Heart Net, CPME, International/Italian/Austrian/Dutch/Japanese/ German Society of Gender Medicine and other organisations.

#### **Policy analysis**

GENCAD aims to identify gender sensitive policies in health in all EU Member States. For this purpose we conducted a policy analysis by developing a database and contacting 383 individuals/organisations. These were surveyed using a two-level questionnaire. For those countries, where we were lacking responses, a desk-based search was conducted. Overall, 273 policies and guidelines were identified and the results were separated into a meta frame (policy environment), issue frame (policies specific to sex/gender in health), as well as document frame (policies focussing on sex/gender and cardiovascular disease).

- All countries have the basis for an equal society, through their Constitutions (meta frame)
- In addition, some countries have well developed and obtainable gender policy and equality legislation that directs policy formation and service provision (meta frame)
- Sex and gender within health generally, and CAD specifically, is recognised within many countries (issue frame)
- Within the document frame many CAD policies identify prevalence by sex, but do not go on to explore the implications for prevention, diagnosis, treatment or rehabilitation by gender
- The ESC Clinical Practice Guidelines are cited as the main source of CAD policy in a few member states, which have detailed advice on sex and gender differences and interventions

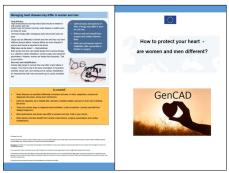
#### **Factsheets**

Based on the results of our literature search, we developed factsheets with detailed information, now available in 24 official EU languages for health professionals and the general public:

#### Health care professionals



#### General public



Complete factsheets can be found under:

https://gender.charite.de/en/research/projekte mit der eu/gencad/

GenCAD project partners:
Institute of Gender in Medicine
Berlin School of Public Health
Andalusian School of Public Health
European Public Health Association
Institute of Health and Wellbeing,
Radboud University Medical Centre
European Association for Cardiovascular Prevention & Rehabilitation