



OLLSCOIL NA GAILLIMHE UNIVERSITY OF GALWAY

# A clinical perspective on early CVD detection and diagnosis

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### **Cardiovascular disease**



Coronary artery disease or ischaemic heart disease

'Heart attacks'

Cerebral artery disease 'Stroke'





Peripheral artery disease 'Hardening of the arteries'

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### Atherosclerotic cardiovascular disease

#### Atherosclerosis is the common pathology













### **Case fatality**





The principle reason to screen for disease before it becomes symptomatic

### Screening the asymptomatic population



### What are the principles?

Screening is the process of identifying individuals in the population who have asymptomatic disease (early detection) or are at high risk of developing the disease.

- A validated screening test to either detect disease or the risk of developing the disease
- An intervention which will favourably modify the clinical course of established disease or reduce the risk of developing the disease

#### A validated screening test to either detect:

Asymptomatic disease

High risk of developing symptomatic disease





#### Coronary calcium screening to detect asymptomatic disease



#### SCORE 2 chart to detect high risk individuals



mg/dL

8

6

6.0-

6.9

250

An intervention which will favourably modify:

# Clinical course of the asymptomatic disease



# Risk of developing symptomatic disease



An intervention which will favourably modify:

# Clinical course of the asymptomatic disease



# Risk of developing symptomatic disease



An intervention which will favourably modify:

# Clinical course of the asymptomatic disease



# Risk of developing symptomatic disease





# Patients with established CVD and those screened individuals at high risk of developing CVD

# Interventions which will favourably **modify the clinical course** of **established disease** or **reduce the risk** of developing the disease



# Patients with established CVD and those screened individuals at high risk of developing CVD

Interventions which will favourably **modify the clinical course** of **established disease** or **reduce the risk** of developing the disease

#### Interdisciplinary Teams

 An interdisciplinary team is a group of practitioners from different professional backgrounds who work together to achieve jointly established goals for patients/clients





DELIVERING THE RIGHT CARE, AT THE RIGHT PLACE, AND AT THE RIGHT TIME







### NTERCEPT



Patients with established CVD and those screened individuals at high risk of developing CVD

#### Reduction in overall cardiovascular risk

#### Improved quality of life

#### Increased life expectancy



'Being healthy is better than being sick or dead. This is the sole argument for prevention. It is sufficient.'

#### **Professor Geoffrey Rose**