

Coronary rehabilitation programmes in Europe are underused, 'with poor referral and low participation'

Coronary patients are not being managed according to European guidelines

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Large proportions of European coronary patients are not benefitting from cardiac rehabilitation services, according to results of the third EUROASPIRE survey published today in the European Journal of Preventive Cardiology.⁽¹⁾ Yet despite the evidence that cardiac rehabilitation is very effective for patients with coronary heart disease, this latest study shows that services in Europe are much underused, with poor referral and a low participation rate.

"There is still considerable potential for cardiac rehabilitation programmes to further reduce the risk of fatal and non-fatal cardiovascular events," say the investigators.

The survey, the biggest in Europe on the secondary prevention of heart disease, showed that less than half (44.8%) of all patients with coronary heart disease (CHD) were advised to follow a rehabilitation programme, but only one-third (36.5%) took part in some form of cardiac rehabilitation. Yet, of those who were advised to attend a programme, four-fifths agreed and did so.

The EUROASPIRE survey, conducted on behalf of the European Society of Cardiology (ESC), analysed medical records and interviewed almost 9000 patients with CHD in 22 countries of Europe. Much variation between countries was found, with highest rehabilitation attendance reported in Lithuania and Ireland, the lowest in Turkey, Cyprus and Russia, and virtually no attendance in Greece and Spain. "These differences are most likely to reflect the heterogeneity of healthcare systems and the availability of cardiac rehabilitation services in some regions of Europe," said the authors.

* In France 32.4% of CHD patients were advised to attend rehabilitation, and of those advised 90% attended

* In Germany 56.6% were advised, and 91.1% attended

* In Italy 51.5% were advised, and 88.7% attended

* In the UK 43.0% were advised, and 80.6% attended

* In Spain 3% were advised and < 1% attended

The study also found that patients who had coronary artery bypass surgery were more likely to be offered and attend rehabilitation programmes than those in other diagnostic categories. Smokers, older patients and those with lower educational attainment were also less likely to attend.

As background to the report the authors note that cardiac rehabilitation is recommended by the European Society of Cardiology, the American Heart Association and the American College of Cardiology in the treatment of patients with CHD. It is a cost-effective intervention following an acute coronary event and improves prognosis by reducing recurrent hospitalisation and health care costs, while prolonging life. Indeed, cardiac rehabilitation compares favourably in terms of cost per life year saved with other well-established interventions such as percutaneous coronary interventions or coronary artery bypass surgery.

Investigator Dr Kornelia Kotseva from the National Heart & Lung Institute in London described the results as a major cause for concern. "There is an urgent need to raise the standard of secondary prevention," she said.

EUROASPIRE III is the third survey of the series and was carried out in patients from 76 coronary care centres in Europe. Consecutive patients with a diagnosis of CHD were identified, and interviewed and examined at least six months after their coronary event. Earlier reports have shown that many

coronary patients do not achieve lifestyle, risk factor and therapeutic targets for cardiovascular disease prevention as set out in the guidelines. There were wide variations in risk-factor prevalence and use of cardioprotective drug therapies between countries.(2,3)

A comparison between the 13 countries which participated in both the EUROASPIRE II and III surveys showed that the proportion of patients advised to follow a cardiac rehabilitation programme increased from 44.5 to 55.7%, and that the participation rate also increased from 38.0 to 46.1%. It was also shown in EUROASPIRE III that those patients attending a cardiac rehabilitation programme smoked less (with higher smoking cessation rates), and had significantly better total cholesterol control and higher use of cardoprotective medications than found in EUROASPIRE II.

"Although these results are encouraging," said Dr Kotseva, "there is still considerable potential for cardiac rehabilitation programmes to further reduce the risk of fatal and non-fatal cardiovascular events. Many patients referred to and participating to a cardiac rehabilitation programme do not achieve the lifestyle and risk factor target.

"To achieve the clinical benefits of a prevention programme, we need to integrate professional lifestyle interventions with effective risk factor management and evidence-based drug therapies appropriately adapted to the medical, cultural and economic setting of a country. The challenge is to engage and motivate cardiologists, physicians and health professionals to routinely practice high quality preventive cardiology in a health care system which invests in prevention."

Today, cardiac rehabilitation has evolved from supervised exercise sessions and return-to-work training in patients recovering from heart attack or cardiac surgery into more comprehensive programmes which include health education on smoking, diet and physical activity, risk-factor management (control of blood pressure, cholesterol levels and diabetes), and the use of prophylactic drug therapies. The World Health Organisation describes cardiac rehabilitation as "the sum of activities required to influence favourably the underlying cause of the disease, as well as the best possible physical, mental and social conditions, so that they may, by their own efforts preserve or resume when lost, as normal a place as possible in the community".(4)

Notes for editors

1. Kotseva K, Wood D, De Backer G, De Bacqueur D. Use and effects of cardiac rehabilitation in patients with coronary heart disease: results from the EUROASPIRE III survey, *Eur J Prevent Cardiol* 2012; DOI: 10.1177/2047487312449591
2. Kotseva K, Wood D, De Backer G, et al, on behalf of EUROASPIRE Study Group Cardiovascular prevention guidelines – the clinical reality: a comparison of EUROASPIRE I, II and III surveys in 8 European countries. *Lancet* 2009; 372: 929–940.
3. Kotseva K, Wood D, De Backer G, et al.; on behalf of EUROASPIRE Study Group. EUROASPIRE III: a survey on the lifestyle, risk factors and use of cardioprotective drug therapies in coronary patients from twenty- two European countries. *Eur J Cardiovasc Prev Rehabil* 2009; 16: 121–137.
4. Needs and priorities in cardiac rehabilitation and secondary prevention in patients with coronary heart disease. WHO Technical Report Series 831. Geneva: World Health Organisation, 1993.

* The ESC has performed three surveys as part of its EUROASPIRE programme (European Action on Secondary Prevention through Intervention to Reduce Events); the first two were published in 1998 (findings from 1995/96) and 2001 (findings from 1999/2000). Dr Kornelia Kotseva, EUROASPIRE III's first author and medical co-ordinator of the study, is a consultant cardiologist at the National Heart & Lung Institute, Imperial College, London

* Cardiovascular disease, and particularly coronary heart disease, is the leading cause of death in Europe, accounting for 43% of all deaths in men and 55% in women. There are marked differences in prevalence between countries.

* More information on this press release and a PDF of the paper is available from the ESC's press office

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European Society of Cardiology

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