MedicalXpress

Frail patients should have tailored cardiac rehabilitation, say European experts

December 12 2016

European experts have called for frail patients to have tailored cardiac rehabilitation programmes in a paper published today in the *European Journal of Preventive Cardiology*.

The call to action comes from the Cardiac Rehabilitation Section of the European Association of Preventive Cardiology (EAPC), which is a registered branch of the European Society of Cardiology (ESC).

Frailty is a vulnerable state in older people. It is common, occurring in 30–50% of people over 75 years of age. Patients have low physiological reserves and their organs do not function at full capacity. They use a greater proportion of their reserves to survive and small events can lead to deterioration, disability, cardiovascular events, and death.

"In frail patients, a minor illness or intervention that would not cause problems in younger adults can initiate a series of consequences that may be very serious," said lead author Professor Carlo Vigorito, Professor of Internal Medicine, University of Naples Federico II, Italy. "The trigger could be influenza, a diagnostic angiogram, removal of a colon polyp, or being admitted to hospital."

Frailty has important prognostic significance, and predicts poorer outcome in those with coronary artery disease or heart failure, and after cardiac surgery or transcatheter aortic valve replacement.

Cardiac rehabilitation programmes aim to prevent second heart attacks

or other cardiovascular complications in patients with heart problems. They include exercise, education on healthy lifestyle, and control of risk factors such as high cholesterol and high blood pressure. About one-third of patients referred for cardiac rehabilitation are older than 75 years – frailty may therefore be fairly common in this population but it is not systematically assessed.

The authors recommend that health professionals running cardiac rehabilitation programmes should:

- Measure frailty and its severity in elderly patients.
- Tailor cardiac rehabilitation programmes to frailty level.
- Evaluate the impact of tailored programmes on disability, quality of life, and mortality.

The paper recommends two methods for assessing frailty that are quick and easy to perform. "They can be used by any health professional, such as a cardiologist, nurse, allied health professional or medical student, and contribute to a broader evaluation of the patient," said Professor Vigorito.

Cardiac rehabilitation programmes can be tailored to frailty level in a number of ways. Standard programmes are based on endurance exercise but frail patients usually have sarcopenia (reduction of skeletal muscle mass and strength) and are more likely to benefit from strength exercises. When patients are able to walk they could start endurance exercise. Nutrition is a more important part of rehabilitation in frail patients than in younger, fitter patients. Medications need extra attention due to iatrogenic risk.

Professor Vigorito said: "We hope that designing specific cardiac rehabilitation interventions for frail patients will reduce levels of disability, improve functional capacity and quality of life, and reduce

length of hospitalisation or hospital readmission."

More information: C. Vigorito et al. Frailty and cardiac rehabilitation: A call to action from the EAPC Cardiac Rehabilitation Section, *European Journal of Preventive Cardiology* (2016). DOI: 10.1177/2047487316682579