The association between fitness measurement and cardiac rehabilitation completion

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Background: Assessing functional capacity for patients entering a CR programme is strongly recommended by various organisations. Based on the result of this assessment, the intensity of exercise is prescribed, the risk is stratified and by the end of the programme, the effectiveness of the exercise intervention is evaluated [1]. However, despite the recommendations relating to assessing patients’ level of functional capacity prior to the programme and following it, less than one-third of CR patients undertook this test [2].

Aims: The aim of this study was to examine the association between whether the patient’s fitness is measured at baseline assessment and the completion of their Cardiac Rehabilitation (CR) programme.

Method: A retrospective observational study using data from 102 CR centres from January 2015 to April 2016 was conducted to address this aim. Logistic regression was used to investigate the association and taken into account some factors including age, gender, Body Mass Index (BMI), employment status, total number of comorbidities.

Results: Data relating to 31,433 patients (mean age of 65.20±11.80 years, 73% of whom were male) was analysed. Out of the total number of patients, 9,785 (31%) undertook a fitness assessment at baseline. Patients whose fitness was measured were 48% more likely to complete their CR programme compared to those whose fitness was not measured.

Conclusion: Patients are more likely to complete CR if their fitness is measured at baseline which represents one the largest modifiable service-level characteristics reported in CR.