Cardiac rehabilitation and readmissions after heart transplantation.

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Abstract

BACKGROUND:

Exercise-based cardiac rehabilitation (CR) is under-utilized. CR is indicated after heart transplantation, but there are no data regarding CR participation in transplant recipients. We characterized current CR utilization among heart transplant recipients in the United States and the association of CR with 1-year readmissions using the 2013-2014 Medicare files.

METHODS:

The study population included Medicare beneficiaries enrolled due to disability (patients on the transplant list are eligible for disability benefits under Medicare regulations) or age ≥65 years. We identified heart transplant patients by diagnosis codes and cumulative CR sessions occurring within 1 year after the transplant hospitalization.

RESULTS:

There were 2,531 heart transplant patients in the USA in 2013, of whom 595 (24%) received Medicare coverage and were included in the study.

CR utilization was low, with 326 patients (55%) participating in CR programs. The Midwest had the highest proportion of transplant recipients initiating CR (68%, p = 0.001).

Patients initiating CR attended a mean of 26.7 (standard deviation 13.3) sessions, less than the generally prescribed program of 36 sessions.

Transplant recipients age 35 to 49 years were less likely to initiate CR (odds ratio [OR] 0.39, 95% confidence interval [CI] 0.23 to 0.66, p < 0.001) and attended 8.2 fewer sessions (95% CI 3.5 to 12.9, p < 0.001) than patients age ≥65 years.

CR participation was associated with a 29% lower 1-year readmission risk (95% CI 13% to 42%, p = 0.001).

CONCLUSIONS:

Only half of cardiac transplant recipients participate in CR, and those who do have a lower 1-year readmission risk. These data invite further study on barriers to CR in this population