

Cardiac Rehabilitation Program after AMI in Israel: Factors Associated with Patients Referral

Harpaz, David¹; Goldenberg, Ilan²; Matezky, Shlomi³; Klempner, Robert⁴; Mazouz, Benjamin⁵; Buby, Liudmila³; Gottlieb, Shmuel⁶

¹*Gil-Oz Rehabilitation Center Associated, Cardiology Department, Rabin Medical Center, Petha-Tikva, Israel;*

²*Neufeld Cardiac Research Institute, Levaiv Heart Center, Cardiac Rehabilitation Institute, Tel-Hashomer, Israel;*

³*Neufeld Cardiac Research Institute, Levaiv Heart Center, Tel-Hashomer, Israel;*

⁴*Levaiv Heart Center, Cardiac Rehabilitation Institute, Tel-Hashomer, Israel;*

⁵*Bikur-Cholim Hospital, Cardiology Department, Jerusalem, Israel;*

⁶*Neufeld Cardiac Research Institute, Levaiv Heart Center, Bikur-Cholim Hospital, Cardiology Department, Jerusalem, Israel*

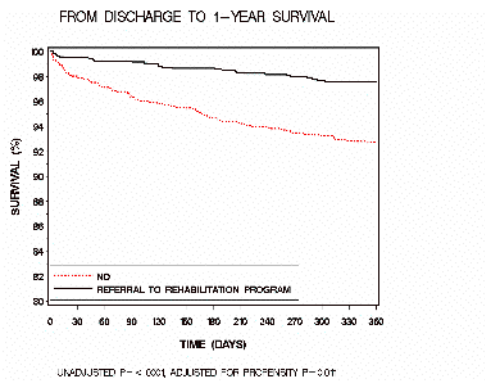
Cardiac rehabilitation (CR) for secondary prevention after AMI is recommended by international and national guidelines, particularly in patients (Pts.) with multiple risk factors who are at moderate to high risk, in whom supervised exercise activity is warranted.

The aims of the study were to evaluate the referral pattern to CR, to assess factors associated with recommendations to participate in such programs and to evaluate survival of post-MI patients who are referred for CR.

All 4,129 Pts. enrolled in the 2006-2010 ACSIS surveys who were alive at discharge, diagnosed with AMI were included. Multivariate logistic regression analysis was used to identify factors associated with CR referral.

Only 49% who experienced AMI were referred to CR program by cardiology wards. Referred Pts. had a lower risk profile than non-referred (NR) Pts. The NR Pts. were older, had a higher prevalence of a history of MI, angina, CABG, CHF, DM, hypertension, chronic renal failure (CRF), CVA/TIA and PVD and more often left ventricular dysfunction and NSTEMI.

Independent predictors (OR; 95% CI) associated with CR referral were: male gender (1.7;1.4-2.0), the year of the index event (2008 vs. 2006; [1.7;1.4-2.0]), (2010 vs. 2006; [2.7;2.3-3.2]), Jewish origin (1.8;1.5-2.2), the existence of on site CR program (1.9;1.7-2.3) and family history of CAD (1.2;1.0-1.4), whereas increasing age (1-yr increment [0.93;0.89-0.96]), NSTEMI (0.7;0.6-0.8), history of CVA/TIA (0.6;0.5-0.8) and CRF (0.8;0.6-1.0) were negatively associated with referral for CR. Pts. who were referred for CR experienced significantly higher survival rates at 1-year as compared with the NR Pts. (unadjusted $p < 0.001$; propensity score adjusted $p = 0.01$)



Pts. referral to CR program should be encouraged by cardiology wards, especially among those with a higher risk profile. Low availability of such programs is an obstacle for implementation of this recommendation and may affect long-term outcome after AMI.