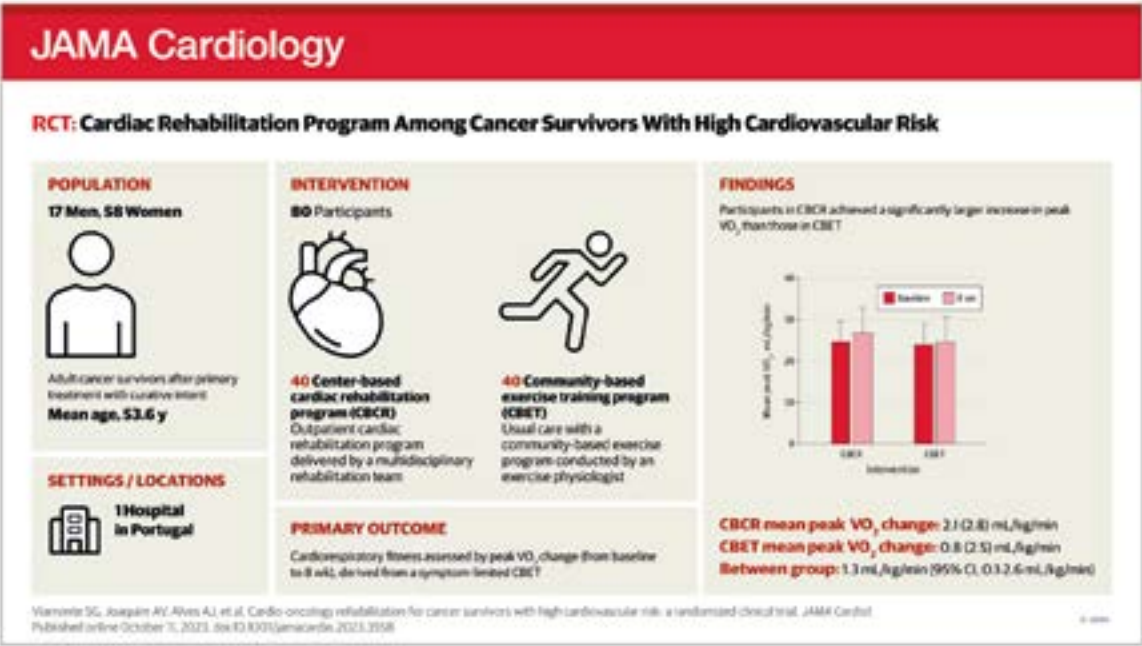


Cardio-Oncology Rehabilitation for Cancer Survivors With High Cardiovascular Risk: The CORE Trial

Sofia Gonçalves Viamonte^{1,2}, Ana Vieira Joaquim², Alberto Jorge Alves^{2,4}, Eduardo Vilela^{2,5}, Andreia Capela^{2,3}, Cristina Ferreira⁶, Barbara Fresco Duarte², Nuno Dias Rato^{2,4}, Madalena Pinheiro Teixeira⁵, Aida Tavares⁷, Mário Santos⁸, Fernando Ribeiro⁹

Cardiovascular diseases pose a significant threat to cancer survivors, making it crucial to find effective ways to reduce cardiovascular risk. The CORE trial investigated whether a center-based cardiac rehabilitation program compared with usual care encompassing community-based exercise training is superior for improving cardiorespiratory fitness and controlling cardiovascular risk factors among cancer survivors with high cardiovascular risk. The trial enrolled adult cancer survivors who had undergone treatments with potential cardiovascular impacts, such as certain cancer medications or prior heart disease. The cardio-oncology rehabilitation program comprised core components (e.g. exercise training, cardiovascular risk factor management, diet and nutrition counseling, physical activity counseling, psychological support) of an outpatient cardiac rehabilitation program delivered

by a multidisciplinary rehabilitation team. Participants in the 8-week cardio-oncology rehabilitation program demonstrated clinically superior enhancements in cardiorespiratory fitness, health literacy, quality of life, and cardiovascular risk factors. Despite higher costs, the cardio-oncology rehabilitation model proved to be a cost-effective intervention. Overall, the findings suggest that integrating a cardio-oncology program has the potential within the established infrastructure of cardiac rehabilitation to be incorporated in the standard care of this population with complex and challenging needs. The CORE trial's results were published in high-impact journals like JAMA Cardiology and the European Journal of Preventive Cardiology, and were presented at various conferences. The trial had a significant scientific and societal impact, receiving multiple awards at national and international congresses.



- 1 – North Rehabilitation Center, Centro Hospitalar Vila Nova de Gaia/Espinho, Vila Nova de Gaia.
- 2 – ONCOMOVE – Associação de Investigação de Cuidados de Suporte em Oncologia, Vila Nova de Gaia.
- 3 – Oncology Department, Centro Hospitalar Vila Nova de Gaia/Espinho, Vila Nova de Gaia.
- 4 – University of Maia, Research Center in Sports Sciences, Health Sciences and Human Development, Maia.
- 5 – Cardiology Department, Centro Hospitalar Vila Nova de Gaia/Espinho, Vila Nova de Gaia
- 6 – Hematology Department, Centro Hospitalar Vila Nova de Gaia/ Espinho, Vila Nova de Gaia.
- 7 – ISEG, Lisbon School of Economics and Management, University of Lisbon, Lisbon.
- 8 – Cardiology Department, Centro Hospitalar Universitário de Santo António, Porto; Unit for Multidisciplinary Investigation in Biomedicine, School of Medicine and Biomedical Sciences Abel Salazar, University of Porto, Porto.
- 9 – iBiMED & School of Health Sciences, University of Aveiro.

FIGURE 1
Summary of the CORE trial design and results of the primary outcome measure.