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PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 69372

Title: Current role and future perspectives of cardiac rehabilitation in coronary heart

disease

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05114928 Position: Peer Reviewer

Academic degree: MSc, PhD

Professional title: Doctor, Physiotherapist, Postdoc

Reviewer's Country/Territory: Czech Republic

Author's Country/Territory: Portugal

Manuscript submission date: 2021-06-27

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-06-28 06:28

Reviewer performed review: 2021-07-01 08:20

Review time: 3 Days and 1 Hour

Scientific quality	[] Grade A: Excellent [] Grade B: Very good [Y] Grade C: Good [] Grade D: Fair [] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [] Grade B: Minor language polishing [] Grade C: A great deal of language polishing [] Grade D: Rejection
Conclusion	[] Accept (High priority) [] Accept (General priority) [Y] Minor revision [] Major revision [] Rejection
Re-review	[Y]Yes []No



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Peer-reviewer

Peer-Review: [Y] Anonymous [] Onymous

statements Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Cardiac rehabilitation has a central role in the contemporary management of coronary heart disease, having broad applications across the cardiovascular continuum. Since its inception, exercise-based cardiac rehabilitation has progressively evolved into a holistic intervention in a multidisciplinary setting, tackling several issues associated with coronary heart disease. Different reports have attested to its importance, namely among individuals with coronary heart disease, overall mortality, and morbidity. Over the last decades, data has also highlighted its role in managing other pathologies such as heart failure and peripheral artery disease. More recently, among entities ranging from atrial fibrillation to its potential role among individuals with ventricular assist devices. The present article provides a review of the current role and future perspectives of cardiac rehabilitation. The authors should be commended for the scope of the paper and the balanced style used, which could be an essential addition to the present literature on the topic. However, minor issues need to be addressed before the present article can be considered for publication in the Journal. CHALLENGES TO CR - As described in point challenges to CR's present section, please expand on the subtopic "Home-based program". Also, please strongly reconsider discussing more the information on the recent AACVPR/AHA/ACC scientific statement on this topic that is referred to no. [83]. FUTURE PERSPECTIVE - The topic of telemedicine has progressively expanded the spotlight, which is even more reinforced in the current epidemiological setting (i.e. in the face of the coronavirus pandemic) as the subsection for telerehabilitation can be reflective of one of the cornerstones of the possible future horizon for many approaches within the scope of CR. Therefore, though highly attractive, there are some points which



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should be discussed. Firstly, to provide a broader view and given the subject matter concerning the COVID-19 and CR. Consider discussing (and referencing) the recent data related to COVID-19 in point of telerehabilitation approach such as Two Hundred-Meter Fast-Walk Test to give readers a brief overview on possible prescription methods. Secondly, the sentence (...) "Interestingly, some studies highlight the potential in the use of digital applications (often included in the broader concept of mHealth, as the use of wireless technologies with the aim of improving patient outcomes) in CR [100].." (...) This is an essential point, which could be of growing significance. Please further explore the benefits and caveats of this model and the data to support its use (- if available). Thirdly, please consider reviewing the data relating some of the surrogates mentioned (such as "heart rate by using a watch and a chest strap" or "wrist heart rate monitor as a telerehabilitation device") with established models of peak VO2 consumption (cardiopulmonary exercise test). Please also describe if these surrogates have been validated among populations with ischaemic heart disease and any ongoing studies on this topic. Finally, data should be presented to illustrate the relationship between variations in these parameters (and the use of remotely monitored telerehabilitation for cardiac patients in current situation) and safety and mortality (if available). If evidence is not present for this following point, please consider describing this hindrance. Please also consider addressing some of the data present in the article The future is now: a call for action for cardiac telerehabilitation in the COVID-19 pandemic from the secondary prevention and rehabilitation section of the European Association of Preventive Cardiology. As this is a recent call to action from the European Association of Preventive Cardiology, its inclusion would improve the present article and provide the reader with additional references for the topic in question.