

INPLASY PROTOCOL

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Review Stage at time of this submission: Preliminary searches.

Conflicts of interest:
None declared.

Rehabilitation nursing for cardio-oncology: a protocol for systematic review and evidence mapping

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Review question / Objective: To synthesize the evidence related to rehabilitation nursing for patients with cardio-oncology, in order to guide clinical decision-making and improve the prognosis of patients.

Condition being studied: Cardiovascular disease has become the leading cause of death among cancer survivors, as patients with malignant tumors survive longer. Effective rehabilitation nursing for patients with cardio-oncology is an urgent problem to be solved. However, at present, there are few studies on rehabilitation nursing for patients with cardio-oncology, and the relevant evidence is lacking.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 April 2023 and was last updated on 26 April 2023 (registration number INPLASY202340093).

INTRODUCTION

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patients with cardio-oncology, and the relevant evidence is lacking.

METHODS

Participant or population: We will include patients who have been diagnosed with cancer and have developed or are at risk of developing cardiovascular complications as a result of antitumor therapy.

Intervention: Interventions of interest include nursing measures to promote recovery in patients with cardio-oncology: (1) exercise training (2) nutrition management (3) medication guidance (4) psychological nursing (5) follow-up guidance, etc.

Comparator: In terms of control conditions, blank control, placebo, treatment as usual or other rehabilitative care will be included.

Study designs to be included: We will include all relevant randomized controlled trials (RCTs), clinical controlled trial (CCT), prospective or retrospective cohort, and case-control study.

Eligibility criteria: The eligibility criteria will be the following: 1. Types of study: randomized controlled trials (RCTs), clinical controlled trial (CCT), prospective or retrospective cohort, and case-control study. 2. Participants: Cancer patients at cardiovascular risk. 3. Interventions: Treatment strategies include: exercise training, nutrition management, medication guidance, psychological nursing, follow-up guidance, etc.

Information sources: We will identify relevant trials from systematic searches in the following electronic databases: PubMed, Embase, Web of Science and The Cochrane Library. Additional relevant studies will be searched through search engines (such as Google), and references included in the literature will be tracked.

Main outcome(s): (1) Patients' cardiac function is measured by laboratory indexes such as left ventricular ejection fraction,

Brain natriuretic peptide (BNP) and cardiac output.

(2) Incidence of complications mainly includes the incidence of cardiovascular diseases such as myocarditis, heart failure and coronary heart disease.

(3) Mortality mainly includes deaths of patients due to cardiovascular complications.

(4) Patient satisfaction was assessed using patient satisfaction questionnaire.

Quality assessment / Risk of bias analysis:

The Cochrane Collaboration Bias risk assessment tool will be used to assess the quality of the included RCTs. The content of evaluation mainly includes 6 areas such as randomization process, deviations from intended interventions, missing outcome data, measurement of the outcome, selection of the reported result and overall bias. The Newcastle-Ottawa Scale (NOS) scale was used to evaluate the quality of non-randomized studies (CCT, cohort studies and case-control studies). The higher the score, the lower the risk of bias. Any differences will be discussed and resolved by the third researcher.

Strategy of data synthesis: We will use Stata (V.15.0) and Review Manager (V.5.2.0) for data analysis. The Odds ratio (OR) and 95%CI were used as statistical indicators for dichotomous variables, and the Mean difference (MD) and 95%CI were used as statistical indicators for continuous variables. I^2 will be used to test heterogeneity. When $I^2 > 50\%$, it is considered that there is heterogeneity in the study, and sensitivity analysis or subgroup analysis will be performed to detect the source of heterogeneity. Stata15 will be used to draw funnel plot to evaluate publication bias. In addition, we will combine Begg test and Egger test for quantitative judgment. $P < 0.05$ will be considered to be statistically significant.

Subgroup analysis: If statistical heterogeneity is evident, we will analyze the causes of heterogeneity, if there is enough data.

Sensitivity analysis: We will use the exclusion method to conduct sensitivity analysis: (1) exclude low-quality studies; (3) exclude trials with missing data.

Country(ies) involved: China.

Keywords: cardio-oncology, rehabilitation nursing, systematic review.

Contributions of each author:

Author 1 - Niu Mingming - The author designed this protocol and developed the search strategies.

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Author 2 - Xu Lei - The author drafted the protocol and contributed to the extraction of research data.

Author 3 - Liu Xiaonan - The author read, provided feedback and approved the final manuscript.

Author 4 - Wang Quan - The author contributed to evaluation of bias and analysis of results.