

PREHABILITATION IN CANCER PATIENTS: CURRENT EVIDENCE ON FUNCTIONAL AND PSYCHOLOGICAL OUTCOMES

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Background and Aims

Prehabilitation, defined as the implementation of physical, nutritional, and psychological interventions prior to cancer treatment, has gained growing interest for its potential to optimize functional reserve and improve outcomes. This review aims to summarize the most recent evidence regarding the effectiveness of prehabilitation in enhancing physical performance, reducing psychological distress, and improving postoperative recovery in cancer patients.

Methods

A narrative synthesis was conducted using findings from recent systematic reviews and meta-analyses published between 2023 and 2024. The studies included evaluated the impact of multimodal and exercise-based prehabilitation programs on outcomes such as anxiety, depression, endurance (6-minute walk test and VO_2 peak), and postoperative complications in patients undergoing oncological treatment, primarily surgical resections.

Results

Recent meta-analyses confirm that prehabilitation significantly improves physical endurance, with one study showing a mean increase of 38.5 meters in the 6-minute walk test and moderate improvements in VO_2 peak. Mental health also benefits: prehabilitation was associated with significant reductions in anxiety and depression (HADS scores improved by -0.49 and -0.71, respectively). In surgical patients, prehabilitation led to reduced postoperative complications, including pulmonary events, and shorter hospital stays. Despite promising results, evidence quality was rated as low to moderate in several reviews due to methodological heterogeneity and variability in program designs.

Conclusion

Prehabilitation is a promising approach to improve functional capacity and mental well-being in cancer patients prior to treatment. It may reduce postoperative complications and enhance recovery, particularly in surgical candidates. However, variability in protocols and limited high-certainty evidence highlight the need for standardized, large-scale trials to confirm these benefits and inform clinical guidelines.

Keywords: Cancer; Prehabilitation