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BENECA PROJECT: ENERGY BALANCE ON CANCER. Feasibility of a e-health system in patients diagnosed with cancer

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Abstract

BACKGROUND. The energy imbalance (excess in energy intake (diet) or low physical activity), is a key to the increased risk of some of the most prevalent cancer processes currently, being determinants of the risk of recurrence, second cancers and cancer mortality.

Recent research reveal that, even knowing the benefits of interventions aimed at promoting energy balance among cancer survivors, it is unrealistic to expect that most of them, with a strong sedentary habit, comply with the current guidelines of good practice.

AIM AND OBJECTIVES. The main objective of this project is to design, implement and validate in a real clinical setting an on-line monitoring system energy balance on cancer survivors (BENECA system).

STUDY DESIGN. A descriptive crossover design and a prospective design with one arm (pre and post-intervention) will be used to meet the first objective (design and feasibility study of the application) and to evaluate the effect of the intervention, respectively. The goal is to keep recruiting study for 12 months. It is anticipated that approximately 96 cancer patients will be sent to the program during this time.

BENECA System asks users to register food and drinks, and the different activities carried out during the previous day. With an open structure and four time periods, after entering the information the application detects if there is an energy imbalance and will provide to patient their level of energy balance and general recommendations on physical activity (according to the American College of Sports Medicine), and substituting foods considered potentially carcinogenic by others with protective capacity against cancer (following guidelines of the American Cancer Society).

CONCLUSIONS. The aim of this paper is to present the BENECA project to the scientific community. In this study we hope to overcome the specific barriers identified to facilitate the inclusion of exercise and healthy diet programs within supportive care for cancer survivors.

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