Implementation of a Multinational Nutritional Prehabilitation Program to Improve Outcomes in Cancer Patients in Low- and Middle-Income Countries.

Team: Dr. Vanessa Fuchs-Tarlovsky Clinical Nutrition Research Unit. Hospital General de México dravanessafuchs@gmail.com +525530431782, Dr. Esther Sathiaraj- chief Clinical Nutrition HCG Hospital India, esther.sathiaraj@gmail.com Dr. Dolores Rodriguez, SOLCA Ecuador, dra.rodriguezvasenpe@gmail.com, Dr. Paula Sanchez, hospital Dr Rafael Calderon, San José, Costa Rica, dra.paola.sanchez@gmail.com. Patience Chimah-Mandubuko, Lagos University Teaching Hospital, Nigeria, pat_chima@yahoo.com. Renuka Jayatissa, International Institute of Health Sciences. renuka@iihsciences.edu.lk.

Colegio Mexicano De Nutrición Clínica Y Terapia Nutricional A.C.

Objectives and scope

1) Implement a standardized nutritional prehabilitation pathway. 2) Improve early identification of malnutrition using GLIM. 3) Evaluate impact on complications, treatment tolerance and hospital stay. 4) Assess feasibility and scalability in LMIC healthcare systems. 5) Document the feasibility of implementing a structured, well-designed, low-cost prehabilitation program across different hospitals and cancer centers in resource-limited countries, and to evaluate its impact in patient outcomes.

The innovation of this proposal lies in its multinational design and its focus on a low-cost initiative suitable for limited-resource countries (LRC), with the potential to transform nutrition support practice by enabling early detection and intervention before the oncology treatment begins. We anticipate that implementation of this pathway will lead to measurable improvements in early malnutrition detection, treatment tolerance, and reduction in hospital length of stay across participating centers.

Planned activities & deliverables

Protocol development; training workshops for healthcare professionals; visual resources (booklet) development implementation of nutritional screening and interventions; multicenter patient recruitment; data collection and statistical analysis; dissemination through publications and conferences.

The project will be coordinated by Dr. Vanessa Fuchs-Tarlovsky (Mexico) in collaboration with investigators from oncology centers in LRC such as Asia (India, Sri Lanka), Africa (Nigeria) and Latin America (Costa Rica, Ecuador and Mexico mainly). Each participating center will designate a local clinical lead and a research coordinator responsible for patient recruitment, data collection and implementation of the nutritional prehabilitation pathway. The multidisciplinary team will include physicians, dietitians, oncology specialists and research staff with expertise in clinical nutrition, cancer care and implementation research.

Funding will primarily support:

- Project coordination and data management
- Development of standardized protocols and training materials
- Online training workshops for healthcare professionals
- Data collection and statistical analysis
- Dissemination of results through publications and scientific meetings

Some of the hospitals selected will have the human resources to start the project and the infrastructure to organize it, so the resources obtained are planned to be used to coordinate the effort between the hospitals, countries and services involved.

The project is designed as a low-cost implementation initiative to facilitate adoption in resource-limited healthcare systems.

The project will also evaluate health economic benefits through reductions in complications and hospital length of stay.

Is the project transferable to other care settings / geographical regions?

Yes. The pathway is designed as a low-cost scalable model that can be adapted to oncology centers worldwide, particularly in low-resource healthcare systems.

Resources & Enablers:

- Existing clinical nutrition teams in participating centers
- Institutional commitment to implementation
- Established international collaboration network
- Use of standardized GLIM criteria
- Low-cost, adaptable intervention model



The MNI grant will support:

- Multicenter project coordination development.
- Development of educational materials and training programs
- Establishment of the multicenter database
- Statistical analysis and evaluation of outcomes
- Dissemination of results and development of implementation guidelines
- Strong international collaboration between participating centers
- Established expertise in clinical nutrition and oncology care
- Use of standardized diagnostic criteria (GLIM)
- Implementation of scalable, low-cost interventions
- Commitment of participating institutions to integrate nutritional care into oncology practice

This initiative aims to develop a scalable model for implementing nutritional prehabilitation in oncology care across low- and middle-income countries, improving early nutritional intervention and patient outcomes.

X **Please tick to confirm the PEN letter of endorsement is attached. Incomplete submissions will not be considered.**

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