



Background:

- Nearly 30-85% of hospitalized patients suffer from malnutrition.¹
- During hospitalization patients' nutritional condition deteriorate, phenomenon known as "Hospital malnutrition" that usually remain after hospital discharge.²
- Malnutrition is shown to length hospital stay, increase morbidity and mortality.³
- Nutrition treatment has found to be more effective by improving the food presentation.⁴
- Enhancing the meal experience will lead to increase the food intake in elderly patients.⁵

Objectives:

Patients at nutritional risk who will receive nutritional treatment in which the food appearance and the companionship will enhance their meal experience:

- increase their food intake.
- improve their quality of life, including their physical condition.
- Lower mortality rate and rehospitalization.
- Require less expenses from the healthcare system.

Participants:

100 hospitalized patients with MUST of 2 and above with normal cognitive function who are discharged back into the community. All patients will sign an informed consent form.

Procedure:

- A patient with a MUST score above 2 will be informed of the procedure and will sign a consent form.
- A nutritional PANDORA estimate will be performed - predicting mortality, the PANDORA estimate will be measured again after 3 and 6 months.
- Body composition testing will be conducted by the Biosystem (Bodystat® 4000 -BIA 4000, Bodystat, UK)
- The patient will be measured with an instrument of indirect calorimetry (Fitmate - COSMED Srl Rome, Italy)

Participants will be randomly assigned to one of the three study groups:

Control group

Will receive regular nutrition at home for 6 months

Experimental group A

Receive a standard dinner tray every evening assisted by Hazalla organizing representatives for 6 months

Experimental group B

Receive a Professionally beatified (by Bocuse) dinner tray every evening assisted by Hazalla organizing representatives for 6 months.

At the end of the meal, once a week, all the food trays will be photographed using Android or iPhone camera for documentation. A completed NUTRITION DAY photo form will be collected by Hzalla organizing representative. In addition, in the recruitment stage and after a period of 3 and 6 months, Hazalla representative will fill the following:

- A depression and anxiety questionnaire of medical institutions (HADS).
- Quality of Life Questionnaire-SF36.
- The FIM questionnaire - designed to examine the level of independence of patients with disability.
- Costs of patient care savings - hospitalizations, visits to the hospital, active infections, heart problems, and any medication changes, every week.
- Survival- will be checked in the computerized system after one year (ATD)

Apart from the MNI grant, an additional grant has been submitted to the National Insurance Institute.

Costs:

- Hot meals will be supplied by catering company. The meals without beatifying the plate for 67 patients x 180 days = 76,844.40 € (301500 NIS)
- Nutritional counseling and cooperation throughout the study from Bocuse - 10,191.77€ (40,000NIS)
- The Petach Tikva maar office will provide special services at no cost.
- Weekly visit by paramedics (Hatsala Organization) = 30,575.55 € (120,000 NIS)
- A research coordinator - 2,548.47 €/month, 30,581.59 €/year (10,000 NIS/month, 120,000 NIS/year)
- Data typing and statistical analysis - 2,548.47 € (10,000NIS)
- Overhead hospital 15%

Schedule:

	Stage	Month
1	Literature review	completed
2	Request for Helsinki approval	completed
3	Coordination between the parties involved	completed
4	Execution	12 months
5	Data collection and statistical analysis	12-18 months
6	Article writing	18-24 months

The project results are anticipated to provide a proof of the following:

AN EARLY DETECTION OF PATIENTS AT RISK OF MALNUTRITION IN THE HOSPITAL WILL BE FOLLOWED BY AN ALERT IN THE COMMUNITY AND AN ACTION OF THE CITY SOCIAL SERVICES TO PROVIDE HOT MEALS DAILY.

- correlation between enhanced meal experience, which includes personal support and improved food appearance, to the amount of food consumption.
- connection between nutritional treatment in hospitals and in the community.

The project aim to initiate new guidelines that will lead to better treatment of malnutrition in the community.

This project is expected to be beneficial to the healthcare system and the patients. This study can serve as a template to be replicated worldwide.

1. Dupertuis Y, et al (2003). 2. Norman K, et al (2008). 3. Kondrup J, et al (2002). 4. Navarro DA, et al (2015). 5. Yeomans MR (2000).