

# NUTRITIONAL SUPPORT IN ONCOLOGIC PATIENTS: AN OBSERVATIONAL STUDY ON 110 ONCOLOGIC PATIENTS OF THE ASST SANTI PAOLO E CARLO OUTPATIENT NUTRITION SERVICE

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## BACKGROUND AND AIMS

Nutritional parameters stabilization and improvement are the main goals of nutritional support in oncology. These are the results of 20 months of activity of our Nutrition Service and broadens a previous 8-month-long study. The aims are:  
A. evaluating the efficacy of nutritional support in terms of patient's nutritional parameters stabilization;  
B. analysing two different nutritional counselling approaches, personalized diets vs counselling only (no solid literature exists on this topic);  
C. analysing the impact of oral nutritional supplements on calorie-protein intakes.

## METHODS

**Study design:** retrospective non-randomized observational study

**Timing and setting:** From 10/2021 to 05/2023

**Data collected:** weight/BMI, blood proteins, food intakes.

**Intervention:** prescription of

- personalized hypercaloric diets (30 kcal/kg a day in case of normal weight or 35 kcal/kg in case of underweight; proteins 1.5 g/kg a day of real weight)
- or general counselling only

both with/without hypercaloric hyperproteic oral nutritional supplements (ONS).

## STATISTICAL ANALYSIS

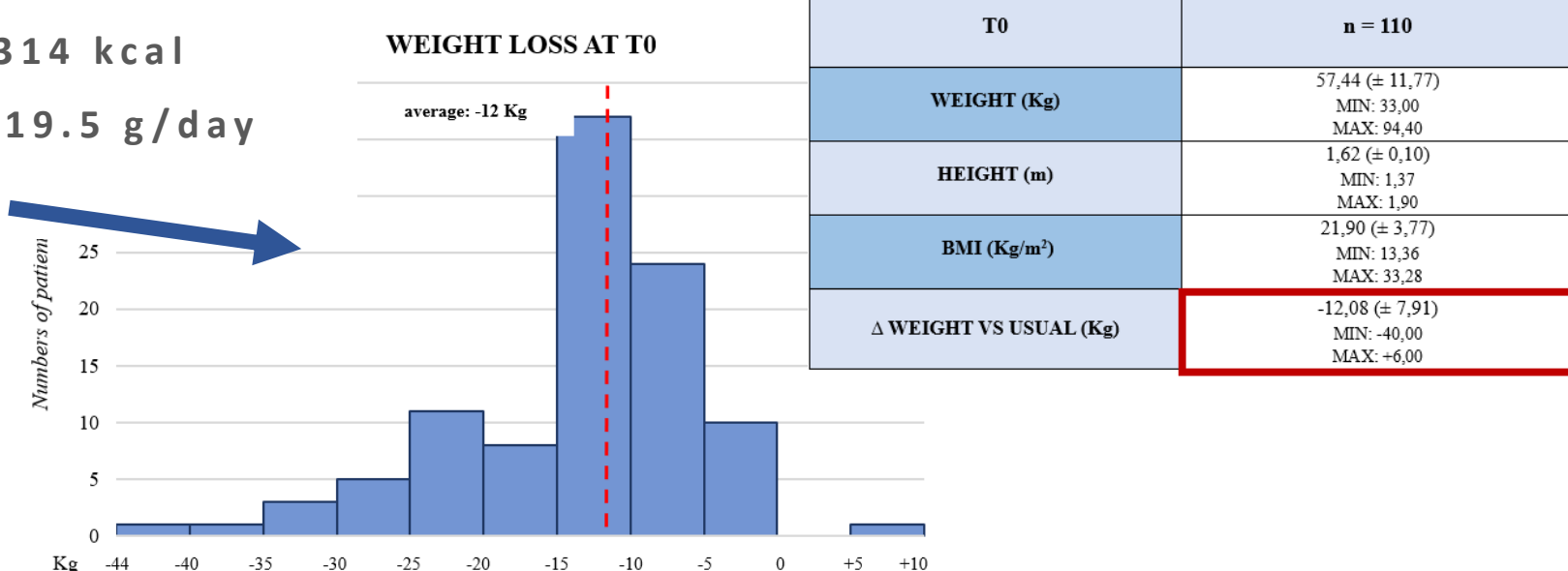
Data were collected and analyzed with Microsoft Office Excel Office Excel. Media, SD and range were calculated.

T student test was used to analyze the variations of anthropometric parameters, blood values and intakes;  $p < 0.05$  was considered significant. Welch two-sample t test was used for non-homogeneous groups.

## RESULTS

At T0 (n=110)

- mean energy deficit vs targets of  $-328.2 \pm 314$  kcal
- mean protein deficit vs targets of  $-27.6 \pm 19.5$  g/day
- mean weight loss vs usual of  $-12.1 \pm 7.9$  kg



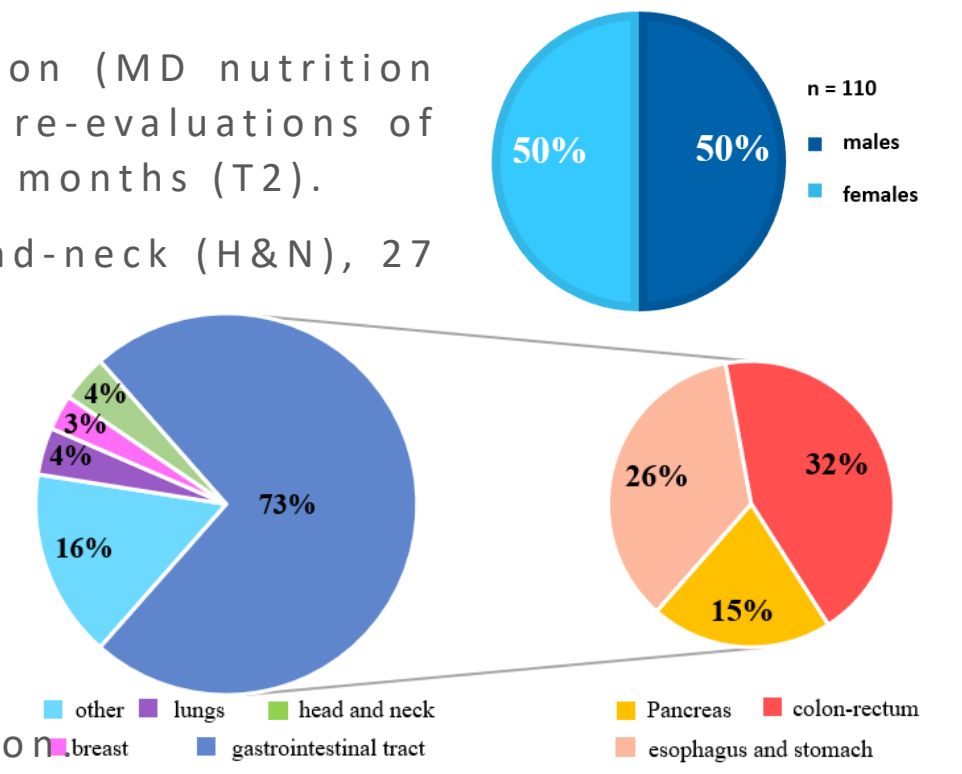
**Population and data collection** A combined evaluation (MD nutrition specialist-registered dietitian) was performed at T0, re-evaluations of the patients were scheduled after 2 months (T1) and 5 months (T2).

**T0:** 110 patients: 82 gastrointestinal (GIT), 4 head-and-neck (H&N), 27 other solid/non-solid tumours.

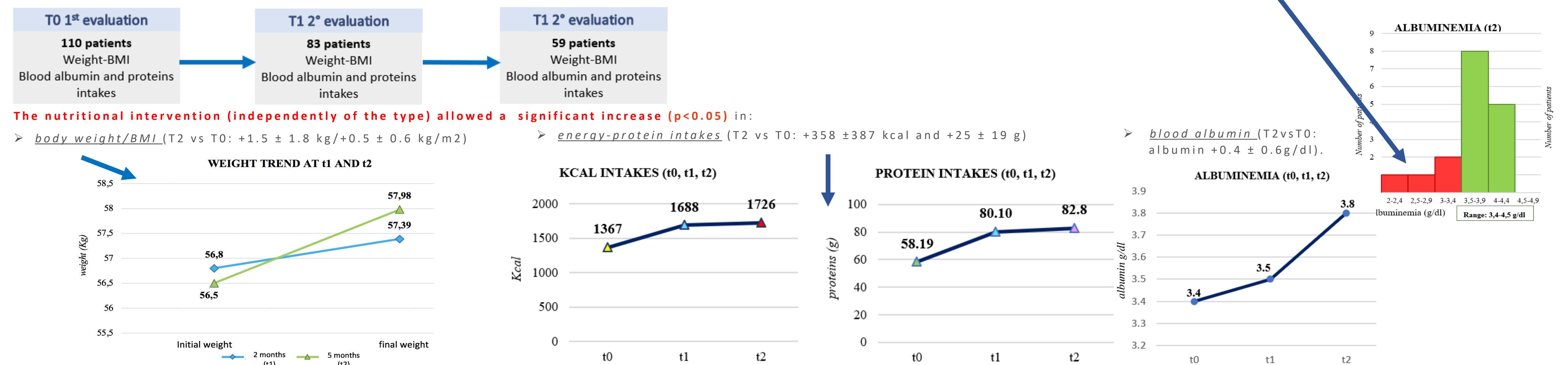
**T1:** 83 patients: 63 GIT, 4 H&N, 16 other solid/non-solid tumours.

**T2:** 59 patients: 48 GIT, 4 H&N, 7 other solid/non-solid tumours

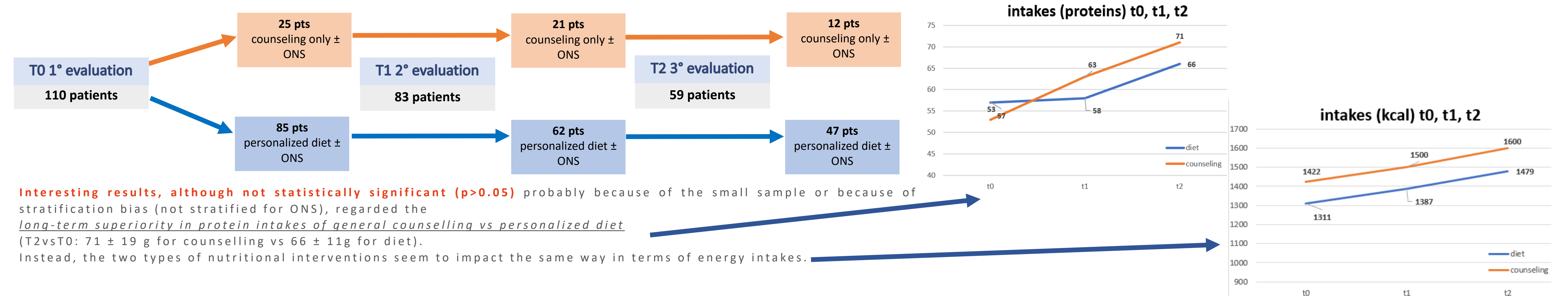
NB number of patients has decreased at T1 and T2 because of lost to follow-up, death, disease progression



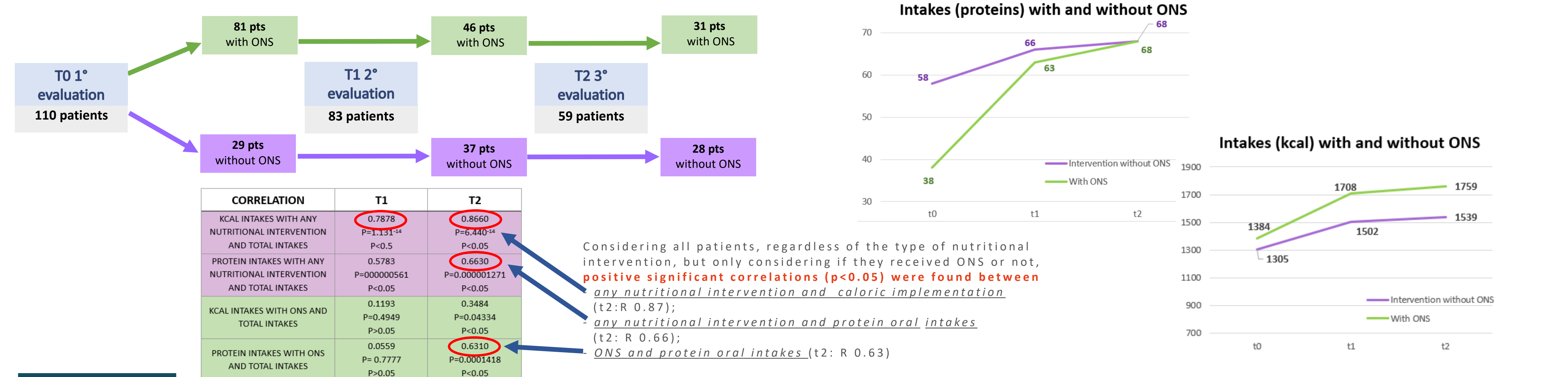
A. At T1 and T2 (n=83 pts and n=59 pts). Considering all patients, regardless of the type of nutritional intervention



B. Comparison between personalized diet vs counselling only, regardless of the use of ONS



C. The role of ONS: comparison between nutritional intervention (regardless of the type) with or without ONS



## CONCLUSIONS

- Nutritional intervention, regardless of the type, improves weight/BMI, blood parameters and food intakes. It is therefore crucial in cancer patients.
- General nutritional counselling might have higher efficacy than personalized diet in protein implementation, while the two approaches seem to have similar effect in terms of calorie intakes; no significant conclusions can be drawn from this study, in terms of superiority of one approach over the other, because of the small sample, of the study type and stratification bias (the two therapy approaches are not randomly assigned, and the analysis does not consider the use of ONS in the comparison of the groups). These are initial results and further research would be of great interest, since no literature exists on this topic.
- Furthermore, a well-performed nutritional intervention alone seems to effectively improve the caloric and protein intakes while the addition of ONS seems to correlate more with a protein implementation.

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