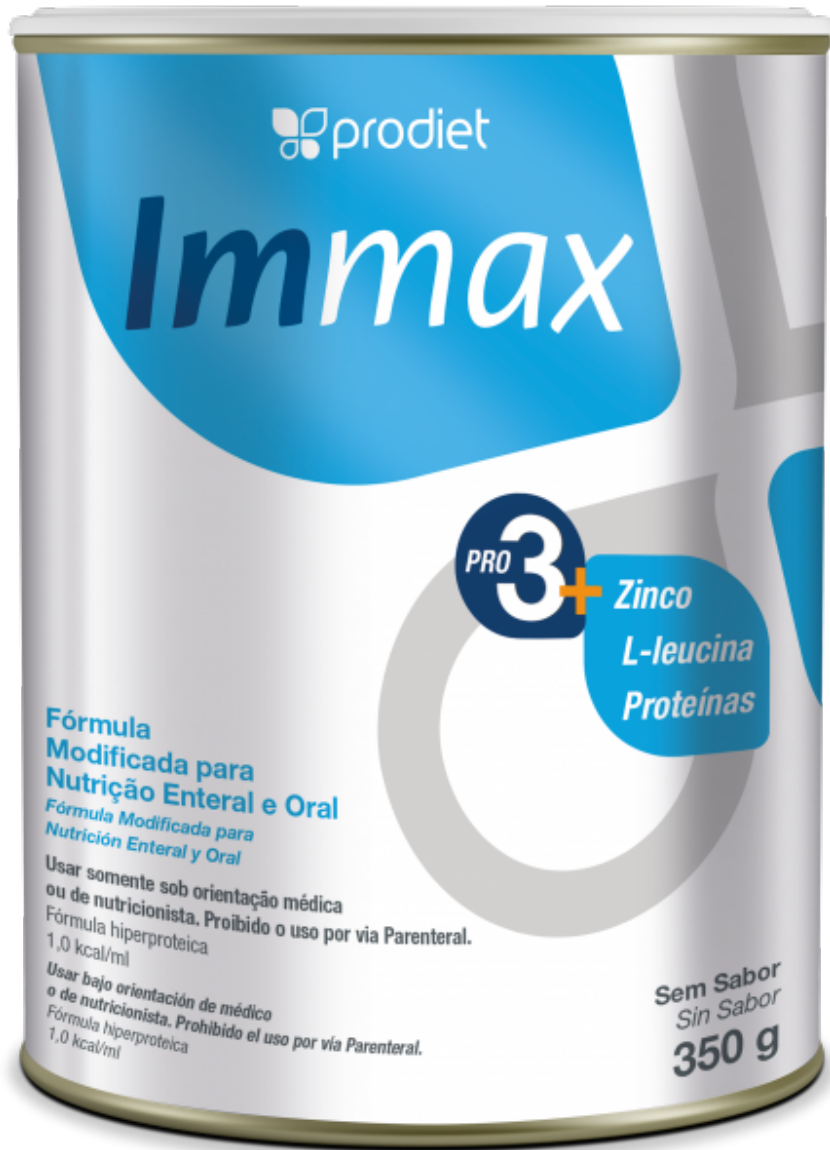




# Immax Publications

2018-2020



## Clinical Research

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- Patients who had received at least 2 cycles of chemo/chemoradiation therapy in neoadjuvant, adjuvant or palliative setting;
- Nutritional Counseling was according to daily requirements of calories and nutrients;
- Calories from Immax<sup>®</sup> completed the energetic requirements.



# Clinical Research

- Adverse Events (AEs) were classified according to CTC-AE NCI, v 4.0.
- Body weight, Body Mass Index (BMI), % Fat Free Mass (%FFM) and nutrition intake were captured on baseline and 4 weeks later in both groups.
- The %FFM was assessed by bioimpedance;
- Nutrition intake was assessed by 24h-dietary recall (macronutrients calculated using the Dietwin<sup>®</sup> software).



# Clinical Research

Patients were classified according to cachexia:

G1 - pre-cachectic

G2 - cachexia / refractory cachexia

with weight loss up to 5% and 5 to 10% / > 10%, respectively, and hyporexia, in the 6 months prior to selection for the study.



# Malnutrition in cancer

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- Nutritional interventions are recommended to **all malnourished cancer patients and those at nutritional risk.**



# Malnutrition – how big is this problem in oncology?

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- **Directly** responsible for **20% to 30%** of **cancer deaths**, perhaps more than 150,000 deaths in the United States alone each year.



# Malnutrition – how big is this problem in oncology?

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[Oncotarget](#). 2017 Oct 3; 8(45): 79884–79896.

PMCID: PMC5668103

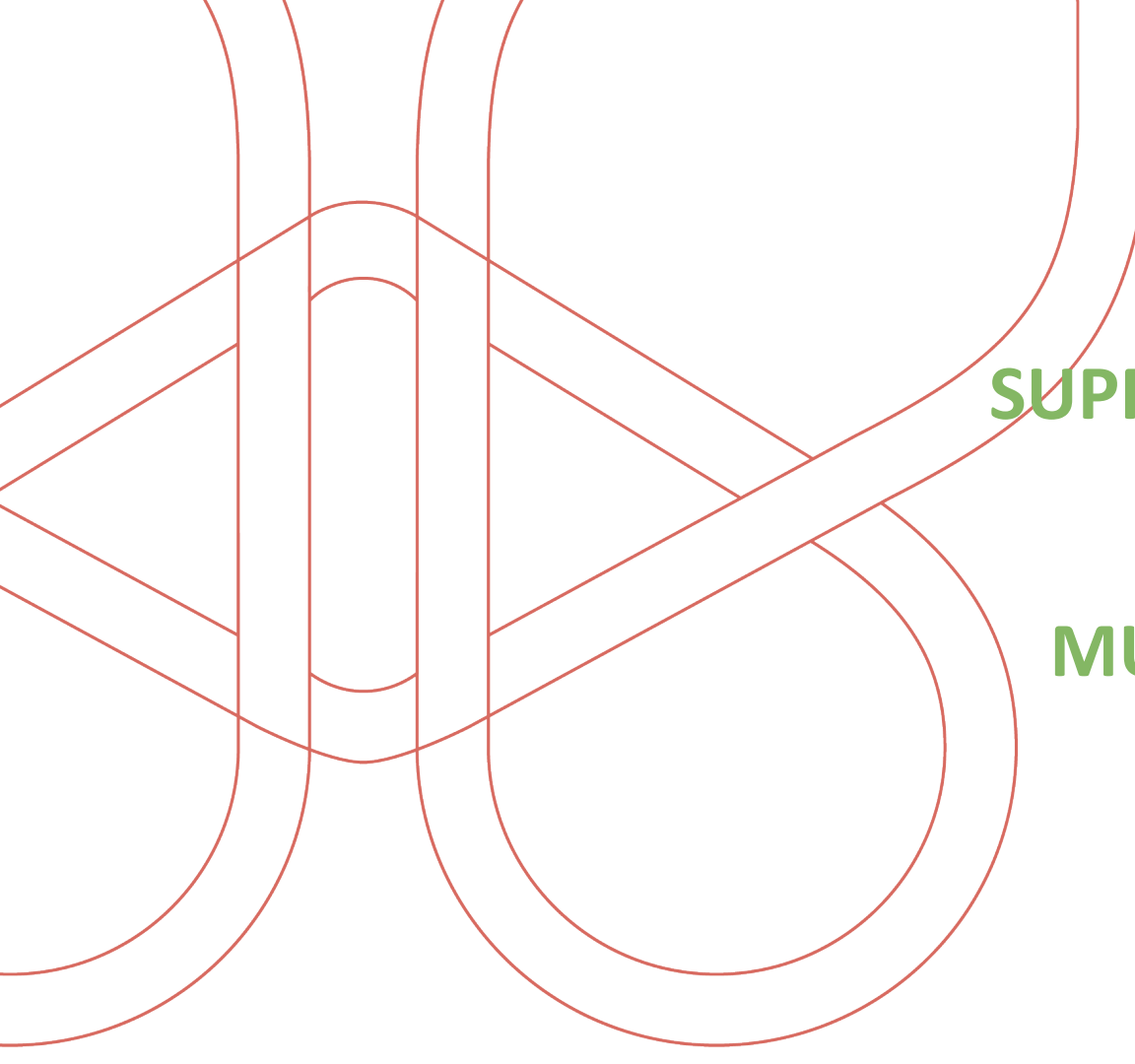
Published online 2017 Aug 10. doi: [10.18632/oncotarget.20168](https://doi.org/10.18632/oncotarget.20168)

PMID: [29108370](https://pubmed.ncbi.nlm.nih.gov/29108370/)

## Prevalence of malnutrition in patients at first medical oncology visit: the PreMiO study

- 1952 patients enrolled;
- 51% had nutritional impairment;
- 9% were overtly malnourished;
- 43% were at risk for malnutrition;
- **Over 40% of patients were experiencing anorexia.**





# **SUPPLEMENTATION IN CANCER PATIENTS RECEIVING CHEMO OR CHEMO/RADIATION THERAPY: A MULTICENTRIC, RANDOMIZED PHASE II STUDY**

FACCIO, et al. Clinical Nutrition, Volume 37, S310

[https://www.clinicalnutritionjournal.com/article/S0261-5614\(18\)32359-8/abstract](https://www.clinicalnutritionjournal.com/article/S0261-5614(18)32359-8/abstract)



# Supplementation in cancer patients

- The use of supplements in cancer patients is justified by the low food intake caused by several factors.
- However, supplementation could be affected by adverse events (AE) related to oncologic treatment and vice-versa.



# Objective

- The aim of this study was to compare the safety and efficacy of supplementation with Immax<sup>®</sup> during oncologic treatment.



# Methods

- 1) Group Immax<sup>®</sup> + nutritional counseling (NC) (arm A)
  - 2) Group NC alone (arm B).
- 
- In the arm A, calories from Immax<sup>®</sup> completed the energetic requirements.



# Results

- Eighty-five patients were included (50 females) with median age 57,7 y.
- In Arm A, the median of supplement intake was 81,8g of Immax<sup>®</sup>/328kcal per day;
- Protein ingested was statistically higher (pre: 65.1g and post: 82.1g;  $p = 0.006$ ) only in arm A.
- The most common treatment related AE were nausea and vomiting and its incidences weren't statistically different between the arms.



# Results

- **Immax<sup>®</sup> was safety and well tolerated by cancer patients** and it didn't interfere with oncologic treatment.
- **Immax<sup>®</sup> provided a significant protein intake** in this patient population.





## **IMPACT OF ORAL SUPPLEMENTATION ON NUTRITIONAL STATUS OF PRE-CACHETIC PATIENTS UNDERGOING ONCOLOGIC TREATMENTS**

FACCIO, et al. Journal of Parenteral and Enteral  
Nutrition, 44: 382-382. ASPEN Nutrition Science &  
Practice Conference: March 28–31, 2020, Tampa, Florida.

<https://onlinelibrary.wiley.com/doi/full/10.1002/jpen.1813?af=R>



# Objective

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- The aim of this study was to evaluate the effect of a specialized ONS on the percentage of fat-free mass (% FFM) of pre-cachectic cancer patients undergoing chemotherapy.



# Methods

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- 50 patients were divided in two groups that received nutritional counseling for 4 weeks:
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- 1) Group Immax<sup>®</sup> + nutritional counseling (NC) (arm A)
- 2) Group NC alone (arm B).



# Methods

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- In the SG, calories from Immax<sup>®</sup> **completed** the energetic requirements.



## Results

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- After intervention, the difference between the groups was statistically different for calories (420;  $p=0,005$ ) and protein (17g;  $p=0.024$ );
- In post supplementation the average intake of SG was **1,865 calories** and **89g of protein** while for the CG was **1446 calories** and **72g of protein**.



## Results

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- The average daily Immax<sup>®</sup> intake was 400.4 calories in SG which contributed with 25g of protein and a total of 6.2g of L-leucine.



# Results

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- Both groups maintained the %FFM during the cancer treatment (intragroup analyze);
- But the mean difference in % FFM after intervention between groups was statistically different with 4.08% ( $p = 0.00157$ ) **in favor of SG (an increase of 2.4% for SG and a decrease of 1.7% for CG).**



## Conclusion

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- This study highlights the importance of including a specialized high protein ONS in nutritional intervention of cancer patients.





**PRODIET**

MEDICAL NUTRITION