

A ready-to-drink plant-based oral nutritional supplement is highly complied with, accepted, tolerated and improves clinical outcomes in adult community-based patients at risk of disease related malnutrition: a multi-centre prospective study.<sup>1</sup>



This information is intended for healthcare professionals only.  
Fortisip PlantBased 1.5kcal is a Food for Special Medical Purposes  
for the dietary management of disease related malnutrition and  
must be used under medical supervision.

Accurate at time of publication: April 2024.

**NUTRICIA**  
**Fortisip®**  
**PlantBased**  
**1.5 kcal**

## Summary

### Rationale:

The use of oral nutritional supplements (ONS) has been shown to be effective for managing disease-related malnutrition (DRM). There is currently no ready-to-drink<sup>2</sup>, plant-based oral nutritional supplement (ONS) available to patients at risk of disease-related malnutrition (DRM). The aim of this one-arm multi-centre intervention study was to evaluate the effects of a plant-based ONS in community adult patients at risk of DRM.

### Methods:

A ready-to-drink, plant-based, nutritionally complete ONS (300kcal, 12g protein: 1.5kcal/ml, Nutricia Ltd., UK), was prescribed ( $\geq 1$ /day) alongside dietary advice for 7-28 days, to adult community-based patients with multiple diagnoses at risk of DRM. Daily compliance (% consumed vs prescribed), reason for requiring a plant-based ONS, body weight, BMI (Body Mass Index), 'MUST'<sup>3</sup> score<sup>3</sup>, dietary intake (24h dietary recall), appetite (Simplified Nutritional Appetite Questionnaire (SNAQ<sup>4</sup>)) ONS palatability and gastrointestinal (GI) tolerance were assessed. Intention-to-treat data analysis was performed.

### Conclusion:

This study: i) shows that a plant-based ONS is highly complied with, improving nutritional outcomes alongside dietary advice; and ii) highlights that there were a variety of reasons why patients at risk of DRM may require a ready-to-drink, nutritionally complete, plant-based ONS. Further investigation is required to ascertain the clinical benefits of using a plant-based supplement in the management of patients with malnutrition.

## Results

Twenty-four patients (age:  $59 \pm 18$  years; BMI:  $18.9 \pm 3.3 \text{ kg/m}^2$ ) were included. Compliance was excellent ( $94 \pm 16\%$ ) and patients confirmed that the ONS was convenient ( $92\%$ ) and fitted in well with their current diet ( $83\%$ ). Patients required a plant-based ONS due to personal preference ( $33\%$ ), cultural/religious reasons ( $28\%$ ), veganism or wish to reduce animal-derived food consumption ( $17\%$ ), sustainability reasons ( $17\%$ ) and health reasons ( $15\%$ ). High risk of malnutrition<sup>3</sup> reduced from 20 to 16 patients ( $p=0.046$ ) with a significant increase in body weight ( $+0.6 \pm 1.2 \text{ kg}$ ,  $p=0.02$ ) and BMI ( $+0.2 \pm 0.5 \text{ kg/m}^2$ ,  $p=0.03$ ) at intervention end. Total energy intake significantly increased ( $+371 \pm 457 \text{ kcal/day}$ ,  $p=0.001$ ), as well as protein intake ( $+14 \pm 39 \text{ g/day}$ ,  $p=0.03$ ). Appetite (from  $11.3 \pm 3.0$  to  $11.9 \pm 3.5$ ,  $p=0.13$ ) and food-only energy intake ( $+130 \pm 325 \text{ kcal/day}$ ;  $p=0.43$ ) were maintained throughout the study. Patients rated the palatability as good to excellent (out of 10) for taste ( $6.3 \pm 2.5$ ), aftertaste ( $6.5 \pm 2.4$ ), smell ( $6.8 \pm 2.3$ ), appearance ( $7.5 \pm 2.1$ ), and thickness ( $7.5 \pm 2.0$ ). GI symptoms were stable throughout the study with patients ( $79\%$ ) and healthcare professionals ( $88\%$ ) confirming that the plant-based ONS was well tolerated.



\*Malnutrition Universal Screening Tool.

References: 1. Nutricia UK ACBS trial, data on file 2022. 2. MIMS January 2023 3. Frank M, Sivagnanaratnam A, Bernstein J Nutritional assessment in elderly care: a MUST! BMJ Open Quality 2015;4:u204810.w2031. doi: 10.1136/bmjquality.u204810.w2031. 4. Wilson MM, et al. Appetite assessment: simple appetite questionnaire predicts weight loss in community-dwelling adults and nursing home residents. American Journal of Clinical Nutrition. 2005;82(5):1074-81.