NUTRICIA
LIFE-TRANSFORMING NUTRITION
EDUCATION

45th ESPEN CONGRESS

SATELLITE SYMPOSIUM

Expert Booklet

HITTING NUTRITIONAL TARGETS -
NO TIME TO LOSE

When:
12th September 2023

NUTRICIA
LIFE-TRANSFORMING NUTRITION | EDUCATION

SATELLITE SYMPOSIUM

HITTING NUTRITIONAL TARGETS
– NO TIME TO LOSE!

Bridging Science into Practice

When:
12th September 2023 | 18:00 - 19:30 CEST

SYMPOSIUM AGENDA

SPEAKER	TIME	TOPIC
	18:00	**Chaired by: Professor Elisabeth De Waele (BEL)** Medical Director, Intensive Care Department and Associate Professor at Vrije Universiteit. Head of Clinical Nutrition Department, Universitair Ziekenhuis Brussel, Belgium.
	18:15	**Improving patient outcomes in oncology:** Why a tailored nutritional therapy is essential? **Associate Professor Barry Laird (UK)** Professor in Palliative Medicine and Supportive Care, University of Edinburgh. Consultant Physician, Edinburgh Cancer Centre and St. Columba's Hospice.
	18:30	**New evidence triggers change to standard of care:** Why prioritize assertive muscle-targeted interventions in recovery and rehabilitation? **Doctor Irene Breton (ESP)** Doctor of Medicine, Specialist in Endocrinology and Nutrition. Assistant Doctor in Clinical Nutrition and Dietetics Unit, Endocrinology and Nutrition Services, Hospital General Universitario Gregorio Marañón in Madrid. Associate Professor, Faculty of Medicine, Complutense University, Madrid.  **Professor Carel Meskers (NLD)** Professor, Department of Rehabilitation Medicine and Consultant Specialist in Neurorehabilitation. Director, research program "Ageing and Vitality", Amsterdam Movement Sciences research institute, Amsterdam University Medical Center, The Netherlands.
	18:55	**Prioritizing nutrition support in critical care patients throughout hospitalisation:** What we know, what we don't know, what good clinical practice looks like **Associate Professor Lee-anne Chapple (AUS)** Associate Professor and Senior Critical Care Dietitian at the Royal Adelaide Hospital, and a Research Fellow at the University of Adelaide, Australia.
	19:10	**Panel Discussion & Q&A**

PROF. ELISABETH DE WAELE

Head of Clinics ICU
Head of Clinical Nutrition Department
Universitair Ziekenhuis Brussel, Brussels, Belgium

An Introduction by the Chair:

Synopsis

As experts working in the field of nutrition, we are aware that "one size does not fit all" and that high protein is an established key parameter in nutritionally compromised patients, and yet protein intake continues to remain a gap in patients across various clinical settings. How do we address this gap? By looking at past, present, and future of the how, what & why targeted nutritional therapy, and the importance of this to support better clinical outcomes with a focus on:

- How nutritional needs are to be addressed
- One size does not fit all –what strategies are needed to succeed in targeted nutritional therapy
- The importance of a targeted nutritional solution in current context of practice

The theme of the symposium is focused on: Hitting nutritional targets – no time to lose & bridging science into practice, hence the question, how can we bridge what we know (the science) into practice? We want to look at a more targeted nutritional approach in certain conditions such as oncology, frailty and critical care and hospitalized patients. This symposium aims to highlight how nutrition in these patients has evolved over the years and how the future will look like.

The lecture on oncology aims to draw attention on how to improve patient outcomes in patients with cancer, with special focus on the essential role of a tailored nutritional therapy. In addition, within the frail population, the second talk will take us through new evidence triggering change to standard of care: why prioritise assertive muscle-targeted interventions in recovery and rehabilitation. Finally, the lecture on critical care and hospitalization, focuses on addressing & implementing a tailored nutritional approach to address gaps seen in clinical practice: What we know, what we do not know, what good clinical practice looks like, using a practical case study on a stroke patient to demonstrate this.

"Nutritional therapy remains paramount to our patients to achieve better clinical outcomes. Therefore, tailored nutritional therapy and hitting nutritional targets is crucial!"

Biography

Elisabeth De Waele is head of the 2021 newly created Department of Clinical Nutrition at Universitair Ziekenhuis Brussel which unites medical doctors, dietitians, pharmacists and nurses who take care of hospitalized and ambulatory patients challenged by nutritional and metabolic issues. She is Medical Director of the Intensive Care Department and Associate Professor at Vrije Universiteit Brussel and Erasmus Hogeschool Brussel teaching medical students, pharmacists and dietitians in training.

She graduated with great distinction from Vrije Universiteit Brussel in 2004, completed postgraduate training in general surgery in 2010 and became a certified Intensive Care Physician in 2012. In 2008 she obtained a Bachelor diploma in Clinical Nutrition (Odisee Graduate School).

Her scientific work is focused on clinical research in metabolism and nutrition in critically ill, cancer and surgical patients and resulted in a PhD Thesis entitled “Energy Expenditure and Nutritional Therapy in Critically ill Patients” in 2015. She acts as a principal investigator in 9 studies and numerous times as a co-investigator.

Professor De Waele has published 100 articles in peer-reviewed journals and has an extended experience in lecturing live andvirtual at international and national symposia (over 100 performances) and she also dedicates here time to communicate to anon-medical audience on different topics (more than 60 press contacts in 2020).

Since 2018, she is Member of the Executive Board of the European Society for Clinical Nutrition and Metabolism. She is an active member of the Metabolism and Nutrition Section of the European Society of Intensive Care Medicine and Member of the Faculty of the International Symposium on Intensive Care & Emergency Medicine.

She forms a happy family with her husband who is a Gynecologist/Fertility specialist (MD, PhD) and their three children. The Golden pheasants in the garden brighten up their lives.

Her core values are Humanity - Quality – Quantity.

PROF. DR. BARRY LAIRD

Professor in Palliative Medicine and Supportive Care at the University of Edinburgh

Consultant physician posts in the Edinburgh Cancer Centre and St Columba's Hospice

Synopsis

"Prof. Barry Laird will set the scene on the specific nutritional needs of patients with cancer along the treatment journey. He will explore the relationship between inflammation and malnutrition, how it underpins the development of cancer cachexia and influences prognosis, quality of life and poor response to therapy. Prof Barry Laird will share recent evidence on tailored nutritional therapy approaches in oncology and highlight clinical guidelines (ESPEN & ESMO) that underscore the crucial necessity of early nutritional intervention and managing the inflammatory response in cancer. Recognizing the importance of comprehensive cancer care, optimal nutritional support is deemed as essential as treating the tumor, emphasizing the holistic approach required to enhance overall outcomes in oncology."

"Treating the host with optimal nutritional care is as important as treating the tumour"

Biography

Dr Barry J A Laird holds positions as a Professor in Palliative Medicine and Supportive Care at the University of Edinburgh, and consultant physician posts in the Edinburgh Cancer Centre and St Columba's Hospice. He graduated in medicine from the University of Glasgow and completed specialist training in palliative medicine. He was awarded a prestigious National Cancer Research Institute fellowship and joined the University of Edinburgh in 2007 (Professor Fallon's Group) where he has remained. Working in the field of supportive oncology and starting cachexia research in 2010, he was awarded a fellowship from the European Palliative Care Research Centre(PRC).

Following his mentorship from the late Professor Ken Fearon, he continues to develop research in cancer cachexia. He is passionate about transforming the landscape of this through improved understanding of the genesis, mechanisms and treatment via an evidence based translational research programme from basic science to clinical trials. He works on a programme of interventional clinical trials in cancer cachexia in either CI or Senior PIroles, has secured over $5million in funding and supervised doctoral students. His trials range from characterisation work (REVOLUTION), basic interventions (optimal background cachexia care, ENERGY), anti-inflammatory trials (MENAC) and targeted therapies including immunomodulation and cannabinoids.

His work has demonstrated that the host/tumour inflammatory response influences survival, quality of life, lean mass, treatment outcomes and has provided valuable insight into the genesis of cachexia and related symptoms. He has published over 150 papers, is part of ESPEN and ESMO guidelines groups, and is a member of the NIHRCachexia Group and Cancer Cachexia Society.

DR. IRENE BRETÓN

Specialist in Endocrinology and Nutrition

Hospital Universitario Gregorio Marañón, Madrid

President of FSEEN

Synopsis

Dr. Bretón will leverage latest results from the Nutri-EcoMuscle study, extrapolating key learnings from COVID-19 to better serve today's hospital patient preparing for discharge home. New data will shine a light on the deteriorating profile of a typical patient on discharge, linking to the nutritional demands and negative consequences if left untreated including strength & functional decline and loss of independence, ultimately driving progression to a state of frailty. Dr Breton will not only shine a light on the needs of recovery patients but also explore suitable intervention which need to be in place to optimize clinical outcome. Results from the NutriEcoMuscle study will demonstrate the efficacy behind muscle-targeted interventions within this setting. With emphasis on the beneficial effect of Muscle-targeted ONS containing effective dosing of whey, leucine and vitamin D, alongside exercise.

"Prioritizing muscle-targeted interventions throughout the recovery and rehabilitation patient journey can be the first step towards positive change in practice tomorrow"

Biography

Dr. Irene Bretón, MD, PhD, is a medical specialist in endocrinology and nutrition since 1993 and has extensive clinical, teaching and research experience. She is a member of the Clinical Nutrition and Dietetics Unit at the Hospital General Universitario Gregorio Marañón where she specializes in the nutritional medical treatment of acutely unwell patients, including patients with digestive, renal or neurological diseases. She has been the President of the Spanish Society of Endocrinology and Nutrition, SEEN, 2017-2020, and she is currently the president of the SEEN Foundation.

Dr. Bretón is a member of the Clinical Nutrition research group of the "Instituto de Investigación Sanitaria Gregorio Marañón", IsSGM, where she is heavily involved in nutritional research and has published more than 120 articles in peer-reviewed journals. She is an associate Professor at the Complutense University, School of Medicine, since 2004, and collaborating lecturer at other Universities. She is also a member of ESPEN FACULTY and has been a member of the editorial board of the journal Nutrición Hospitalaria and regularly participates in peer- review in Clinical Nutrition, Nutrition, JCM, JCEM or Endocrinology, Diabetes and Nutrition, among others.

Dr. Bretón has a special interest in the assessment of nutritional status and the study of body composition. In particular, she has participated in the standardization and clinical application of novel nutritional assessment techniques, such as ultrasound, and is leading the teaching of this tools for endocrinologist and other medical specialties, as well as nutritionists. Irene is a member of the coordinating committee of the NutrEcoMuscle study, a multicenter study evaluating the effect of nutritional intervention in patients with severe COVID and the usefulness of ultrasound in the nutritional evaluation of these patients.

PROF. DR. CAREL MESKERS

Medical Specialist in Neurovascular Disorders

Ageing & Vitality and Rehabilitation & Development in VUmc

Professor in Rehabilitation medicine at VUm

Synopsis

Prof. Meskers will discuss emerging evidence in muscle-targeted care as part of the Empower-GR study consortium. He will focus on the issue of how to put scientific knowledge into clinical practice and posing the question of 'how can health care professionals bring a more interdisciplinary approach to care in order to optimise muscle and functional recovery'? Prof Meskers will discuss the feasibility and synergistic benefit of exercise and muscle-targeted medical nutrition in geriatric rehabilitation. Definition of the typical older patient in need of muscle-targeted intervention and accurate identification of high-risk patients in clinical practice will enable us to better understand the importance to assertively treat with appropriate multimodal interventions.

"Understanding which patients will respond to nutrition and exercise intervention is critical to ensure treatment is targeted to the right patient at the right time."

Biography

Prof. Carel Meskers is a medical doctor who obtained his PhD on the assessment of shoulder disorders introducing engineering concepts into clinical practice. After his training in physical medicine and rehabilitation in Amsterdam he became a consulting specialist in rehabilitation medicine at Leiden University Medical Center. Since 2014 he is consulting specialist in neuro rehabilitation at VU Medical Center, Amsterdam and medical director of the Innovative Medical Devices Initiative (IMDI) consortium"Neurocontrol": a close collaboration between medical doctors, engineers, scientists and entrepreneurs to facilitate healthcare sustainability. Carel Meskers specializes in assessment and treatment of motor disorders inpatients with upper motor neuron diseases. His research focuses on the understanding of neuromechanical changes as a linking pin between motor, sensory and higher brain function to reduce impairment. He is PI and co- PIof several key research projects such as PROFITS (Precision profiling to improve long-term outcome after stroke), EXPLORE- stroke (Exploring Plasticity after stroke, www.hersenstichting.nl), EXPLICIT (Explaining Plasticity after stroke, www.explicit-stroke.nl), BALROOM (Balance Test Room, www.neurosipe.nl), NeurAS (NEURoControl- Assessment and Stimulation, www.medicaldelta.nl) and ROBIN (ROBot aided system Identification: novel tools for diagnosis and assessment in Neurological rehabilitation, www.neurosipe.nl). He holds a fellowship from the Dutch Brain Foundation (Hersenstichting).

PROF. LEE-ANNE CHAPPLE

Associate Professor and Senior Critical Care Dietitian at the Royal Adelaide Hospital

Research Fellow at the University of Adelaide in Adelaide, Australia

Synopsis

Associate Professor Lee-anne Chapple will outline the recent scientific progress that has occurred in the field of medical nutrition in the critical care setting. We will get a better understanding of optimal nutrition practices in the critical care setting based not only on clinical nutrition guidelines but on emerging evidence that suggests the need for an individualized approach to nutritional care. An overview of the evidence will be integrated with practical tips on how to implement this knowledge into everyday practice; from early enteral nutrition, meeting nutrition targets, and overcoming barriers to nutrition delivery to attenuate muscle loss. In particular, Associate Professor Chapple will focus on the gap between nutrition prescription and delivery, and consideration of nutrient utilisation, not only in ICU but as the patient transitions throughout acute care. Ensuring this continuum of care is thought integral to improving patient outcomes and recovery through active and targeted nutrition support for this vulnerable group. The critical care nutrition field is evolving quickly; large strides have occurred, but much is still to be discovered.

"The critical care nutrition field has evolved from meeting nutrition targets early in the ICU stay to a more individualised and longer term approach; as the hcp we can add value to the patient's recovery through optimal nutrition delivery across the entire hospital continuum"

Biography

Prof. Lee-anne Chapple leads the highly successful intensive care nutrition research program at the Royal Adelaide Hospital, conducting research that focuses on nutrition physiology during critical illness, post-ICU nutrition, and early recovery. In particular, Prof. Chapple has an interest in understanding protein delivery and utilisation and reducing muscle wasting to improve recovery for critically ill patients. Her research covers a breadth of methodologies, from complex physiological studies to large multi-centre randomised trials. Chapple has collaborated on nearly 70 research publications, received more than $9.5million Australian dollars in research funding, and is ranked in the top 1% worldwide on Expert Scape in the fields "Enteral Nutrition" and "Nutritional Support". She contributes widely to the clinical care nutrition profession, holding leadership positions in the American and Australasian Societies of Parenteral and Enteral Nutrition and the Australian and New Zealand Intensive Care Society Clinical Trials Group, and is an Associate Editor for the Australian Critical Care journal.

ABSTRACTS

ABSTRACTS AT ESPEN 2023

Disease Related Malnutrition	A higher protein juice-style, ready-to-drink oral nutritional supplement is highly complied with, palatable and tolerated in community-based patients at risk of disease-related malnutrition
	Changes in nutritional status and risk factors during dietary treatmentin primary care: Preliminary results from the Monday study
	Assessment of burden of disease related malnutrition and reimbursement policies of the Dubai health authority for medical nutrition
	The effect of a nutritional and motor rehabilitation intervention on the nutritional and morphofunctional status of patients with severe covid after hospital discharge. Nutriecomuscle project
	Low volume vs standard oral nutrition supplement wastage in hospital: a pilot comparative effectiveness trial
Plant-Based	Improved micronutrient intake with plant-based oral nutritional supplementation in patients at risk of disease-related malnutrition
	Dietitians' preferences for plant-based energy and protein enriched products for treatment of (risk of) malnutrition: A prove study

ABSTRACTS AT ESPEN 2023

Plant-Based	Plant-based high energy and protein enteral tube feed is highly tolerated, complied with and accepted, and decreases feeding time per day in homeenterally tube fed patients	
Oncology	Effect of a 3-month nutritional intervention with a high proteinomega 3-enriched oral nutritional supplement on selected anthropometric and laboratory parameters and muscle strength in oncology patients	
	Long-term medical nutritional therapy in patients with head and neck cancer	
	Community oral nutritional supplement use in oncology patients reduces complications: A systematic review and meta-analysis	
Critical Care	Nutriecomuscle project: tolerance and adherence to a 100% serumlactoprotein supplement enriched with leucine and vitamin D, in patients with severe respiratory distress	
Stroke	Lower blood level of nutrients that are relevant for recovery in stroke patients: A systematic review and meta-analysis	

A HIGHER PROTEIN JUICE-STYLE, READY-TO-DRINK ORAL NUTRITIONAL SUPPLEMENT IS HIGHLY COMPLIED WITH, PALATABLE AND TOLERATED INCOMMUNITY-BASED PATIENTS AT RISK OF DISEASE-RELATED MALNUTRITION

Espen23-abs-2291

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Rationale:

Juice-style ONS are an alternative to milkshake-style ONS and may be preferred by some patients with disease-related malnutrition (DRM). This one-arm multi-centre pilot study evaluated the effects of a higher protein juice style ONS incommunity adult patients at risk of DRM.

Methods:

Patients with multiple diagnoses received dietary advice alongside ≥1bottle/day of a higher protein, ready-to drink 200ml juice-style ONS (Nutricia Ltd., UK), containing 300kcal and 12g protein/bottle, for 7-28 days. Reason for requiring a juice-style ONS, compliance (%consumed vs. prescribed), palatability, anthropometry, 'MUST' score, dietary intake, appetite (SimplifiedNutritional Appetite Questionnaire), and gastrointestinal (GI) tolerance, were assessed at baseline and intervention end.

Results:

Twenty-one patients (age: 65±18years; BMI: 19.0±3.1kg/m^2) were included. Patients required a juice-style ONS due to personal preference (52%), variety (24%), dislike of milk (10%), better meeting protein requirements (9%), and requiring a fat-free ONS (5%). Compliance was 84% (SD22). Patients rated sensory outcomes as good (≥6.9 out of 10) and confirmed ONS was convenient and easy to drink (78%). The number of patients at high risk of malnutrition 1 significantly reduced (from 15 to 11)(p=0.02), and body weight (+0.7±2.0kg, p=0.13) and BMI (+0.2±0,9kg/m^2, p=0.41) slightly increased at intervention end. Mean total energy intake increased (+341±306kcal/day, p=0.001), while mean protein intake (+9±24g/day, p=0.12) and appetite (from 12.7±3.4 to 13.3±3.8, p=0.19) were maintained. GI symptoms were stable throughout the study, with clinicians confirming patients (90%) tolerated the ONS well.

Conclusion:

This higher protein juice-style ONS is highly complied with, palatable, well tolerated and improves malnutrition risk scores alongside dietary advice.

Disclosure of Interest:

M. Delsoglio Other: Nutricia employee, C. Griffen Other: Nutricia employee, R. Capener Other: Nutricia employee, R.Syed: None Declared, C. Voss: None Declared, T. Connolly: None Declared, T. Thrower: None Declared, C. MacDonald: None Declared, S.Brook: None Declared, T. Cookson: None Declared, H. Saliba: None Declared, A. Vowles: None Declared, S. Davies: None Declared, N.Willey: None Declared, J. Thomas: None Declared, N. Millen: None Declared, N. Odeh: None Declared, J. Longstaff: None Declared, N.Hatchett: None Declared, H. Offer: None Declared, C. Howell: None Declared, M. Sanders: None Declared, K. Gaffigan: None Declared, K.Garrett: None Declared, S. Foster: None Declared, A. Salt: None Declared, E. Carter: None Declared, S. Moore: None Declared, N. Bergin:None Declared, J. Roper: None Declared, J. Alvarez: None Declared, D. Sills: None Declared, J. Baxter: None Declared, R. Manning: NoneDeclared, L. Gray: None Declared, K. Voas-Wooton: None Declared, S. Richardson: None Declared, A.-M. Hurren: None Declared, D.Muphy: None Declared, S. Blake: None Declared, P. McArdle: None Declared, S. Walsh: None Declared, L. Booth: None Declared, L. Albrich:None Declared, S. Ashley-Maguire: None Declared, J. Allison: None Declared, G. Hubbard Other: Nutricia employee, R. Stratton Other:Nutricia employee

Keywords: Disease-related malnutrition, juice-style ONS, oral nutritional supplement

CHANGES IN NUTRITIONAL STATUS AND RISK FACTORS DURING DIETARY TREATMENT IN PRIMARY CARE: PRELIMINARY RESULTS FROM THE MONDAY STUDY

Espen23-abs-1303

M. Sealy*[1,2], P. Mulder[2,3], H. Jager-Wittenaar[1,2,4,5] on behalf of MONDAY

[1] Research Group Healthy Ageing, Allied Health Care and Nursing, Hanze University of Applied Sciences, Groningen, [2] FAITH research, Groningen/Leeuwarden, [3] Nutricia Nederland B.V., Zoetermeer, [4] Department of Oral and Maxillofacial Surgery, University of Groningen, University Medical CenterGroningen, Groningen, Netherlands, [5] Faculty of Physical Education and Physiotherapy, Department Physiotherapy and Human Anatomy, Research Unit Experimental Anatomy, Vrije Universiteit Brussel, Brussels, Belgium

Rationale:

We aimed to assess changes in nutritional status during the first three months of dietary treatment for (risk of) malnutrition in primary care.

Methods:

Adult clients with (risk of) malnutrition were included. Nutritional status was assessed with the Patient-Generated Subjective Global Assessment (PG-SGA) on day 1 and in week 12 of dietary treatment. Malnutrition: PG-SGA Category A=wellnourished; B=moderate/suspected malnutrition; C=severely malnourished. PG-SGA triage recommendations for interventions were defined as described by Ottery et al.1 PG-SGA subscores were calculated for Boxes 1-4 (Weight, Food intake, Symptoms,Function) and its total (PG-SGA SF). Paired differences between day 1 and week 12 were tested with Kendall's tau or related samples Wilcoxon signed ranks test (significance=$p<0.05$).

Results:

The PG-SGA was completed by 121 clients (56% female; 68±19y) on day 1 and in week 12. Changes in PG-SGA categories and scores are presented in **Table 1** (see next page).

Conclusion:

After 12 weeks of dietary treatment, nutritional status improves significantly. While scores for weight, intake, symptoms, and function significantly improve, one in five clients still have a critical need for improved symptom management and/or nutrient intervention options.

References:

[1]Ottery FD. Patient-Generated Subjective Global Assessment. In: McCallum PA, Elliot L, Molseed LL, Grant B, eds.The clinical guide to oncology nutrition. Chicago, Il: The American Dietetic Association; 2006:44-53.

Disclosure of Interest:

None Declared

Table 1: Changes in nutritional status (n=121)

PG-SGA	DAY 1	WEEK 12	P-VALUE
PG-SGA Category	n(%)	n(%)	
A	23(19)	65(54)	<0.001
B	51(42)	42(35)	
C	7(39)	14(12)	
Triage	n(%)	n(%)	
0-1	0(0)	8(7)	<0.001
2-3	3(3)	23(19)	
4-8	26(22)	39(32)	
≥9	92(76)	51(42)	
Score	median(IQR)	median(IQR)	
PG-SGA total	13(8-16)	7(3-11)	<0.001
PG-SGA SF	9(5-12)	4(2-7)	<0.001
Box 1 Weight	1(0-3)	1(0-1)	<0.001
Box 2 Intake	1(1-1)	0(0-1)	<0.001
Box 3 Symptoms	4(1-7)	1(0-4)	<0.001
Box 4 Function	2(2-2)	1(0-2)	<0.001

Keywords: Dietary care, Dietitians, nutritional assessment, PG-SGA, PG-SGA SF, primary care

ASSESSMENT OF BURDEN OF DISEASE RELATED MALNUTRITION AND REIMBURSEMENT POLICIES OF THE DUBAI HEALTH AUTHORITY FOR MEDICAL NUTRITION

Espen23-abs-1520

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Rationale:

We examine issues of disease related malnutrition and insurance reimbursement for medical nutrition interventions within Dubai Health Authority.

Methods:

We did the study in two phases. Phase 1 comprised a targeted literature review in English between 2000 and 2020 on the medical nutrition in patients with cancer, children with food and cow milk protein allergy (CMPA). Phase 2 comprised of a round table discussion (RTD) with representatives of DHA, payers, a clinical nutrition specialist (dietician), and insurance experts from the UAE.

Results:

Medical nutrition offers clear benefits to patients at risk of developing disease related malnutrition (DRM) in different healthcare settings. Studies show 73% reduced usage of systemic antibiotics; 55% reduction in hospitalisation, and 26% reduction in duration of hospital stay with medical nutrition in chronic diseases. Experts from Dubai Health Authority (DHA) agreed that due to lack of unified guidelines, there was no organized insurance coverage for medical nutritional interventions. The process if currently ad-hoc and considered individually (especially for cancer patients), depending on the severity of disease and importance of medical nutrition for a patient's recovery and wellbeing. For consideration, the nutritional product must be first registered with the ministry of health. Consequent to this study, DHA has recently taken steps for review of policies for financial coverage for medical nutrition.

Conclusion:

Nutritional interventions in DRM are cost-effective. There is need to examine policies and guidelines to cover medical nutrition within the Dubai Health Authority.

References:

1. Freijer, K et al. The costs of disease related malnutrition in hospitalized children. Clin NutrESPEN 2018, 23, 228-233

2. Dubai Health Strategy 2016 - 2021. Available online: https://www.dha.gov.ae/Documents/Dubai_Health_Strategy_2016-2021_En.pdf

Disclosure of Interest:

None Declared

Keywords: None

THE EFFECT OF A NUTRITIONAL AND MOTOR REHABILITATION INTERVENTION ON THE NUTRITIONAL AND MORPHOFUNCTIONAL STATUS OF PATIENTS WITH SEVERE COVID AFTER HOSPITAL DISCHARGE. NUTRIECOMUSCLE PROJECT

Espen23-abs-2452

I. Breton*[.1], J. Ocón-Breton[2], A. Zabalegui[3], H. Rendon[4], A. Larrad[5], A. Sanchez-Bao[6], G. Gutierrez-Buey[7], F. Botella[8], C. Joaquin[9], J. M. Garcia-Almeida[10]

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Rationale:

Malnutrition is a common complication in COVID and is associated with a worse prognosis. There is little information on the effect of nutritional and rehabilitation intervention after hospital discharge.

Methods:

Prospective observational multicentre study in patients admitted to the ICU for COVID. Changes in nutritional and morphofunctional status were evaluated 3 months (3m) after hospital discharge, following an intervention including oral nutritional supplementation with 100% serum lactoprotein enriched with leucine and oral vitamin D and motor rehabilitation.

Results:

96 patients, 71.9% male, aged 58.8 (8.5) years. According to the subjective global assessment the A/B/C ratio was 0%/52.1%/47.9% at discharge and 88.4%/11.6%/0% at 3m ($p<0.0001$). An increase in BMI was observed: 28.8 kg/m^2 vs.1.3 kg/m^2 at 3m ($p<0.0001$). Fat-free mass index (<17/<15 kg/m^2 males and females) in 33.3% (discharge) and 17.3% (3m) ($p=0.001$ Decreased grip strength (< 27/16 kg in males and females) was observed in 62.5% at discharge and 30.6% at 3m ($p<0.0001$). The up & go test was >20 seconds in 27.1% at discharge and 3.5% at 3m ($p<0.0001$).

*mean ± SD, **Wilcoson

Conclusion:

All post-ICU COVID-19 patients had some degree of malnutrition at hospital discharge. After a nutritional intervention including a 100% serum lactoprotein nutritional supplement enriched with leucine and vitamin D and motorrehabilitation for 3 months, a significant improvement in nutritional status, body composition and functional parameters was observed.

Disclosure of Interest:

None Declared Keywords: body composition, COVID, Nutritional Intervention.

	AT DISCHARGE*	AT 3 MONTHS*	P-VALUE **
BIA: SMI (kg/m2)	8.5 ± 2.4	9.7 ± 3.8	<0.0001
BIA: FFMI, kg/m2	17.4 ± 3.9	19.4 ± 4.3	<0.0001
BIA: Phase angle (o)	4.5 ± 1.1	5.5 ± 1.0	<0.0001
Rectus femoris thickness (cm)	1.0 ± 0.3	1.4 ± 0.5	<0.0001
Rectus femoris area (cm2)	3.4 ± 1.3	4.7 ± 1.8	<0.0001

Keywords: Cow's milk protein allergy, Disease-related malnutrition, food allergy, Insurance reimbursement, medical nutrition

LOW VOLUME VS STANDARD ORAL NUTRITION SUPPLEMENT WASTAGE IN HOSPITAL: A PILOT COMPARATIVE EFFECTIVENESS TRIAL

Espen23-abs-LB71-T

Roberts S, Gomes K and Angus R

Rationale:

Oral nutrition supplements (ONS) are commonly used in hospitals to improve patient nutrition intakes for the prevention and treatment of malnutrition. Low volume ONS are becoming increasingly popular, as they provide similar amounts of energy and protein than standard ONS, but in a lower volume of supplement. No studies to our knowledge have formally assessed the wastage of low volume vs standard ONS in hospital and their effect on patient energy and protein intakes. This pilot trial examines wastage and consumption of low-volume vs standard ONS in preparation for a definitive trial.

Methods:

This pilot comparative effectiveness trial was embedded in usual practice at a large Australian public hospital. Adult patients from acute wards were randomised to receive two low volume ONS (Fortisip Compact Protein; 125mL each) or two standard ONS (Ensure Plus; 200mL each) per day for three days. ONS containers were weighed to determine grams of supplement consumed and wasted, and energy and protein intakes from ONS were calculated. One full day of dietary intake was directly observed during the three-day study period to determine total daily energy and protein intakes between groups. Patients completed a satisfaction survey about the ONS they received, and a subset participated in a brief interview. All outcomes will be compared between groups using t-test, chi-square test, or non-parametric equivalents.

Results:

Participant enrolment commenced in June 2023. Data collection is ongoing and will be available at the conference. Outcomes reported will include ONS compliance and wastage between groups (grams); and energy (kJ) and protein (grams) intake of ONS between groups. Other outcomes will include patient satisfaction with ONS, hospital length of stay, and total daily energy and protein intakes between groups. Qualitative data on ONS acceptability will also be reported.

Conclusion:

This study is the first to our knowledge to directly examine wastage of low volume vs standard ONS among hospital patients using a randomised design. This pilot will allow us to calculate the sample size required for a definitive trial of the outcomes described above, with data from this pilot likely being rolled into the main trial.

Disclosure of Interest:

None Declared

Keywords: None

IMPROVED MICRONUTRIENT INTAKE WITH PLANT-BASED ORAL NUTRITIONAL SUPPLEMENTATION IN PATIENTS AT RISK OF DISEASE-RELATED MALNUTRITION

Espen23-abs-2287

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Rationale:

Micronutrient deficiency is a concern for patients at risk of disease-related malnutrition (DRM), particularly for those following a plant-based or vegan diet. In this study, the effect of a plant-based oral nutritional supplement (ONS) on micronutrient intake in patients at risk of DRM was evaluated.

Methods:

23 patients with multiple diagnoses at risk of DRM (age: 60±18yrs; BMI: 19.0±3.4kg/m2) continued their habitual feeding regimen for 1 day (baseline), then received dietary advice alongside ≥1 bottle/day of a ready-to-drink, plant-based, nutritionally complete ONS (Fortisip PlantBased; 300kcal, 12g protein, 200ml; Nutricia Ltd., UK) for 7 to 28 days (intervention). Dietary intake (24h recall), recorded at baseline and end of intervention, was analysed for micronutrient intakes (Nutritics, V5.78) and compared with UK reference intakes and ESPEN guidelines 1, 2.

Results:

Mean total daily micronutrient intake significantly increased with the intervention compared to baseline for potassium, calcium, iron, copper, zinc, selenium, vitamin D, and vitamin C ($p<0.05$). Mean intake for all other micronutrients was either maintained or increased ($p\geq0.06$). At baseline, mean daily intake of 7/20 and 5/19 micronutrients met the UK age- and sex-specific reference nutrient intake (RNI) and ESPEN guideline value, respectively. This significantly increased to 14/20 and 12/19 micronutrients, respectively, with the intervention ($p<0.01$).

Conclusion:

In patients at risk of DRM, a ready-to-drink, nutritionally complete, plant-based ONS alongside dietary advice improved micronutrient intake to better meet UK reference intakes and ESPEN guideline values in patients at risk of DRM.

References:

1. Department of Health (1991). Dietary Reference Values for Food Energy and Nutrients for the United Kingdom.

2. Berger et al. (2022). ESPEN micronutrient guideline. Clinical Nutrition.

Disclosure of Interest:

C. Griffen Other: Nutricia employee, M. Delsoglio Other: Nutricia employee, R.Syed: None Declared, T. Cookson: None Declared, H. Saliba: None Declared, A. Vowles: None Declared, S.Davies: None Declared, N. Willey: None Declared, J. Thomas: None Declared, N. Millen: None Declared, N.Odeh: None Declared, J. Longstaff: None Declared, N. Hatchett: None Declared, H. Offer: None Declared,C. Howell: None Declared, M. Sanders: None Declared, K. Gaffigan: None Declared, K. Garrett: NoneDeclared, S. Foster: None Declared, A. Salt: None Declared, E. Carter: None Declared, S. Moore: NoneDeclared, N. Bergin: None Declared, J. Roper: None Declared, J. Alvarez: None Declared, C. Voss: NoneDeclared, T. Thrower: None Declared, C. MacDonald: None Declared, T. Connolly: None Declared, D. Sills:None Declared, J. Baxter: None Declared, R. Manning: None Declared, L. Gray: None Declared, K. Voas-Wooton: None Declared, S. Richardson: None Declared, A.-M. Hurren: None Declared, D. Muphy: NoneDeclared, S. Blake: None Declared, P. McArdle: None Declared, S. Walsh: None Declared, L. Booth: NoneDeclared, L. Albrich: None Declared, S. Ashley-Maguire: None Declared, J. Allison: None Declared, S.Brook: None Declared, R. Capener Other: Nutricia employee, G. Hubbard Other: Nutricia employee, R.Stratton Other: Nutricia employee

Keywords: Disease-related malnutrition, micronutrient intake, oral nutritional supplementation, plant-based

DIETITIANS' PREFERENCES FOR PLANT-BASED ENERGY AND PROTEIN ENRICHED PRODUCTS FOR TREATMENT OF (RISK OF) MALNUTRITION: A PROVE STUDY

Espen23-abs-1979

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Rationale:

The goal of the PROVE (Protein enriched vegan products to fight malnutrition) project is to innovate the assortment of plant-based energy and protein enriched products for dietary treatment of (risk of) malnutrition. We aimed to explore preferences of dietitians for plant-based products in the treatment of malnutrition.

Methods:

In this design-based research project, the Double Diamond model was applied. Contextual interviews were performed with 9 dietitians experienced in treating clients using a vegan diet (1 omnivore, 3 flexi-vegetarian, 1 vegetarian, 1 pescetarian, 3 flexi-vegan). Interviews focused on preferences regarding product type, size, nutrients, taste, packaging, price. Affinity mapping was used to code and analyze the transcripted interviews. The results we resummarized into concept products.

Results:

Four product concepts were developed that represent preferences of dietitians for a plant-based energy and protein enriched product for clients with (risk of) malnutrition.

Overall, pea or soy were preferred as a protein source and addition of vitamins and minerals was not preferred.

Conclusion:

Preferences of dietitians for plant-based protein and energy rich products for patients with risk of malnutrition largely vary. Within PROVE, we will enrich these results with patient perspectives, as basis to develop and deliver plant-based energy and protein enriched products for treatment of (risk of) malnutrition.

Disclosure of Interest:

None Declared

Table 1: Product concepts representing dietitians' preferences (n=9)

PRODUCT TYPE	SIZE	ENERGY (KCAL/ SERVING)	PROTEIN (G)	TASTE	PACKAGING	PRICE (€)
Fresh dessert	100-150 ml	200-300	10-15	Yoghurt	Environmentally friendly, noticeable packaging	2.50
Creamy drink	125-200 ml	200-300	10-15	Fruit or coffee	Reusable/ recyclable bottle, fresh appearance	2.00-5.00
Savory spread	100 g	80-150	5	Cheese	Biodegradable tub	≤2.00
Transparent syrup	250 ml (17 servings)	25-50	5	Tasteless	Glass bottle	8.00

Keywords: Design thinking, dietitian, malnutrition, qualitative research

PLANT-BASED HIGH ENERGY AND PROTEIN ENTERAL TUBE FEED IS HIGHLY TOLERATED, COMPLIED WITH AND ACCEPTED, AND DECREASES FEEDING TIME PER DAY IN HOME ENTERALLY TUBE FED PATIENTS

Espen23-abs-2222

C. Griffen[*,1], N. Wyer[2], R. Martin[3], E. Michaels[4], Y. Dube[4], J. Bates[5], D. J. Griffith[6], H. Meanwell[7], E. Diamond[8], C. Lennon[9], L. Szymanski[10], J. Ward[11], K. Nosworthy[12], S. Morris[13], N. Hatchett[14], N. Glanville[12], R. McNaughton[15], C. Banks[11], S. Owen[16] , N. Blackburn[16], A.Bidgood[5], R. Raif[3], E. Tripp[17], L. Allan[14], C. Brici[5], L. Green[3], L. Lewis[9], L. Chandler[9], C. Robinson[13], A. Lumsdon[13], H. Hitchings[17], A. Campbell[15], J. Baxter[15], S. C. Cooper[18], S. Richardson[12], M. Hardy[12], A. McCloskey[19], R. Capener[1], G. P. Hubbard[1] , R. J. Stratton[1,20]

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Rationale:

Plant-based (vegan suitable) high energy and protein enteral tube feeds (PBTF) available to home enterally tube fed (HETF) patients are limited. This one-arm multi-centre intervention study evaluated the effects of a PBTF.

Methods:

Following a 1-day baseline, adult HETF patients (n=41; age: 51±23years; BMI: 21.5±5.0kg/m2) received ≥500ml/day of a PBTF (2.0kcal/ml; 10g protein/100ml) either with or without added fibre (1.5g/100ml) (NutrisonPlantBased 2.0kcal HP +/- Fibre, Nutricia Ltd., UK) for a 28 day intervention period. Gastrointestinal (GI) tolerance (%patients reporting no symptoms), daily compliance, prescribed daily feed volume, estimated time feeding per day, acceptability, nutrient intake and body weight were assessed at baseline and end of intervention.

Results:

Compared to baseline, with the PBTF, the proportion of patients with no GI symptoms increased (63±11 vs.70±10%, p=0.006) with no difference between feed variants (p=0.87); compliance was greater (91±17 vs. 97±16%, p=0.04); and prescribed daily feed volume (1126±503 vs. 861±354ml/d, p<0.001) and estimated time feeding per day (10.0±4.6 vs. 8.2±3.9hrs/d, p<0.001) reduced. Patients scored the PBTF highly (mean score ≥8.4/10) for allacceptability outcomes. Protein intake increased from baseline to end of intervention (1.3±0.5 vs. 1.6±0.6g/kg/d,p<0.001), and energy intake (1864±512 vs. 1950±559kcal/d) and body weight (60.2±15.3 vs. 60.6±15.5kg) were maintained (p>0.08). All mean micronutrient intakes (excluding electrolytes) met the UK reference nutrient intake (RNI) at baseline and end of intervention

Conclusion:

In adult HETF patients, a PBTF is highly tolerated, complied with and accepted, increases protein intake, and decreases prescribed daily feed volume and estimated time feeding per day.

Disclosure of Interest:

C. Griffen Other: Nutricia employee, N. Wyer: None Declared, R. Martin: NoneDeclared, E. Michaels: None Declared, Y. Dube: None Declared, J. Bates: None Declared, D. Griffith: NoneDeclared, H. Meanwell: None Declared, E. Diamond: None Declared, C. Lennon: None Declared, L.Szymanski: None Declared, J. Ward: None Declared, K. Nosworthy: None Declared, S. Morris: NoneDeclared, N. Hatchett: None Declared, N. Glanville: None Declared, R. McNaughton: None Declared, C.Banks: None Declared, S. Owen: None Declared, N. Blackburn: None Declared, A. Bidgood: None Declared,R. Raif: None Declared, E. Tripp: None Declared, L. Allan: None Declared, C. Brici: None Declared, L. Green:None Declared, L. Lewis: None Declared, L. Chandler: None Declared, C. Robinson: None Declared, A.Lumsdon: None Declared, H. Hitchings: None Declared, A. Campbell: None Declared, J. Baxter: NoneDeclared, S. Cooper: None Declared, S. Richardson: None Declared, M. Hardy: None Declared, A.McCloskey: None Declared, R. Capener Other: Nutricia employee, G. Hubbard Other: Nutricia employee, R.Stratton Other: Nutricia employee

Keywords: Cancer, enteral nutrition, gastrointestinal tolerance, high energy, high protein, plant-base

EFFECT OF A 3-MONTH NUTRITIONAL INTERVENTION WITH A HIGH PROTEIN OMEGA 3-ENRICHED ORAL NUTRITIONAL SUPPLEMENT ON SELECTED ANTHROPOMETRIC AND LABORATORY PARAMETERS AND MUSCLE STRENGTH IN ONCOLOGY PATIENTS

Espen23-abs-2396

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Rationale:

Alongside prompt nutritional intervention designed to meet energy and protein needs, ESPEN guidelines recommend the use Omega 3 fatty acids (EPA and DHA) to stabilize or improve appetite, food intake, lean body mass and body weight in patients with cancer. This study aims to evaluate the impact of a 3-month nutritional intervention with a high protein (HP) omega 3-enriched oral nutritional supplement (ONS) in 800 oncology patients with malnutrition receiving anti-cancer treatment on anthropometric, physical performance, and laboratory parameters. Here in, we reporton the first preliminary results.

Methods:

In this multi-center, single arm, intervention study, adult oncology patients receiving active/radical oncologytreatment (colorectal, esophageal, gastric, head and neck and lung cancer), with or at risk of malnutrition and requiring ONS prescription were eligible for inclusion. Patients received two bottles of Forticare Advanced daily (125 ml, 18g protein, 306 kcal, 1.1g EPA and 0.7g DHA, 10 µg vitamin D) for 3 months. Study assessments were conducted at baseline (Day 0), 1 and 3- months and included body weight, inflammatory markers (C-reactive protein (CRP)), physical function (hand grip strength (HGS) using a dynamometer and 30-second chair stand test (CST)), physical aspects of quality of life, and compliance to the ONS.

Results:

In total, 76 patients (58% male, mean age 66 (SD 10) years were recruited to date. At baseline, 41% of patients had experienced weight loss >10% and 46% had systemic inflammation (CRP >10 mg/dL). On average, patients gained+1.59 kg (SD 0.38 kg, p=0.0001) and showed a decrease in CRP level by 7.6 mg/dL (SD 4.02 mg/dL, p<0.001) over 3 months. Physical performance improved with an increase in HGS (+1.96 (SD 0.7) kg, p<0.001) and CST (+1.44 (SD 0.2)stands, p=<0.001) at 3 months. Change in body weight was positively correlated with changes in CST performance (p=0.0031), HGS (p=0.0299), album in levels (p=0.0066), and physical aspects of quality of life (all p=0<0.05). Average compliance to the ONS was 1.7 bottles/d.

Conclusion:

In this study, cancer patients with or at risk of malnutrition who were prescribed a HPomega 3 enriched ONS for 3-months improved in body weight, showed decreased inflammation and improved in physical performance.

References:

Muscaritoli M, Arends J, Bachman P, et al. ESPEN practical guideline: Clinical Nutrition in cancer. Clin Nutr. 2021 May; 40(5):2898-2913.

Disclosure of Interest:

P. Holečková Grant / Research Support from: honoraria, lecture fees, V.Rosenberg Grant / Research Support from: honoraria, M. Paľo: None Declared, V. Lánská Grant /Research Support from: honoraria

Keywords: Body weight, high protein, malnutrition, nutritional intervention, Omega 3 fatty acids, physical performance

LONG-TERM MEDICAL NUTRITIONAL THERAPY IN PATIENTS WITH HEAD AND NECK CANCER

Espen23-abs-2443

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Rationale:

Several factors can affect outcomes of head and neck cancers (HNC) including type of anti-tumour therapy, nutritional status of the patients, and the length of medical nutrition therapy (MNT). Our goal was to collect real-life data on the MNT of HNC patients and to investigate correlations between the long-term MNT and survival.

Methods:

The data of this retrospective, analytical, cohort study were collected from electronic healthcare records from the Hungarian National Health Insurance Fund Management. Statistical analysis was done by the Kaplan-Meier method and Cox regression analysis.

Results:

Baseline population (≥ 18 years, incidence, 2013–2021) was 26,235 patients, from which 16,871 (64%) newly diagnosed patients received MNT therapy. By dividing the patients into 3 groups according to the length of MNT (1–3;4–6; ≥7-month), we found that patients receiving ≥7 months of MNT had a significantly longer overall survival ($p<0.0001$) than those who received MNT for a shorter period. Another interesting finding is that in the long-term (≥7months) group the proportion of tube-fed patients was higher than those who consumed oral nutritional supplements, 60% in locally advanced and 61% in recurrent/metastatic cases.

Conclusion:

The outcome of the study is that there is a positive correlation between the long-term MNT and the overall survival in HNC patients when nutritional intervention is ≥7 months.

Disclosure of Interest:

A. Molnar Grant / Research Support from: The study was financially supported by Danone, Other: Andrea Molnar works for Danone Hungary Ltd., B. Belak: None Declared, C.Blasszauer: None Declared, D. Reibl: None Declared, J. Lövey: None Declared

Keywords: None

COMMUNITY ORAL NUTRITIONAL SUPPLEMENT USE IN ONCOLOGY PATIENTS REDUCES COMPLICATIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS

Espen23-abs-2404

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Rationale:

A high prevalence of complications combined with poor nutritional status in oncology patients means the use of nutrition support warrants further investigation. A recent meta-analysis showed fewer complications with oral nutritional supplements (ONS) in all patient types (1). This systematic review specifically examines all types of ONS versus control on the incidence of complications, in all types of oncology patients undergoing surgery and/or cancer treatment (chemo/radiotherapy).

Methods:

A systematic review (searches up to 23rd November 2022) identified 20 community-based randomised controlled trials (RCT) (n2631, mean age 63 years (47-70 years), with varying nutritional status) of multi-nutrient ONS in addition to diet, reporting the incidence of complications (e.g. post operative, infectious complications) in oncology patients [GI surgical (12RCT), Head and Neck surgical (3RCT), Bladder surgical (1RCT), Lung surgical (2RCT) medical (2RCT)]. ONS was given preoperatively (preop) (9RCT), post operatively (postop) and post discharge (5RCT), preop, postop and post discharge (3RCT) and in the community only (3RCT). Meta-analysis was performed using Comprehensive Meta-Analysis, fixed effects model.

Results:

ONS [72% ready to drink, mean intake 696kcal/day (400-1750kcal); 32g protein/day (18-72g), 28days (5-91days)] were prescribed, 50% were high protein (>20% energy from protein) and 32% were n-3 enriched. Meta-analysis (17RCT;n2423) showed ONS significantly reduced the incidence of complications versus control (OR 0.64, 95% CI 0.52,0.78, I2=22, p<0.001). Overall, 23% (258/1136) of supplemented patients had complications versus 31% (349/1128) of controls, a 26% reduction in complications, NNT 12.5. Meta-analysis was significant for high protein (OR 0.52, 95% CI0.37, 0.73, I2=0, 7RCT, p<0.001), including n-3 enriched (OR 0.58, 95% CI 0.38, 0.87, I2=0, 4RCT, p=0.008) and ready to drink ONS (OR 0.65, 95% CI 0.52, 0.81, I2=32, 12RCT, p<0.001).

Conclusion:

This meta-analysis shows that community-based supplementation with ONS, including high protein and n-3 enriched, can significantly reduce the incidence of complications in a variety of oncology patients. References: (1) Cawood AL, Burden ST, Smith T, Stratton RJ. Aging Research Reviews88 (2023) 101953

Disclosure of Interest:

None Declared

Keywords: Nutrition support, oncology, systematic review

NUTRIECOMUSCLE PROJECT: TOLERANCE AND ADHERENCE TO A 100% SERUM LACTOPROTEIN SUPPLEMENT ENRICHED WITH LEUCINE AND VITAMIN D, IN PATIENTS WITH SEVERE RESPIRATORY DISTRESS.

Espen23-abs-2450

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Rationale:

Oral nutritional supplementation (ONS) has been established as an effective strategy to improve the nutritional status of patients during the recovery period after hospital admission. This abstract focuses on the adherenceand tolerance to a hyperproteic, 100% serum lactoprotein supplement enriched with leucine and vitamin D.

Methods:

Prospective observational multicentre study in patients with respiratory distress admitted to the ICU (>72hs). Adherence and tolerability to the WNS was assessed at 45 days by telephone and in person 3 months after hospital discharge.

Results:

96 patients, 74% male, aged 58.6 (8.5) years and with COVID-19 (90.4%). At 45 days, 81.3% of patients were adequately adherent (>70%); 76% were 100% adherent and 3.1% had poor adherence (<50%). At 3 months, 70% were compliant (>70%); 64% were 100% compliant, and 4% had poor adherence. At both 45 days and 3 months, no statistical differences were found in the population (adherent/non-adherent) by sex, age >65 or diabetes. At 45 days, 55.2% reported feeling well or very well and only one patient reported feeling very bad. At 3 months, 62% felt good-very goodand 3.3% felt very bad, with a median of 8/10 points at both times. All gastrointestinal symptoms had a median score of 0 with the exception of feeling full after taking the ONS, with a median score of 5/10. At the end of treatment, the most frequently occurring symptoms were flatulence (12%) and satiety (26.1%).

Conclusion:

Patients admitted for severe respiratory distress had good tolerability and high adherence to treatment at discharge with an oral 100% serum lactoprotein nutritional supplement enriched with leucine and vitamin D, without experiencing frequent gastrointestinal symptoms, both at 45 days and at 3 months.

Disclosure of Interest:

None Declared

Keywords: Adherence, COVID, leucine, oral nutritional supplement

LOWER BLOOD LEVEL OF NUTRIENTS THAT ARE RELEVANT FOR RECOVERY IN STROKE PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Rationale:

After stroke, malnutrition is common and may not be limited to suboptimal body weight and energy intake but also includes inadequate blood levels of nutrients. This systematic review and meta-analysis investigated blood levels of a broad selection of nutrients in stroke cases compared to controls.

Methods:

MEDLINE, CAB and Embase abstracts were searched for studies published in English from 1980 until 2022. Studies with adult stroke subjects and controls whose blood samples were analyzed for compounds from a selected series of nutrients known to exert antioxidant or anti-inflammatory activity or be involved in membrane phospholipid synthesis were included. Results were generated with a random-effects meta-analysis model for unadjusted and age-adjusted data, if the number of reports per nutrient was >3.

Results:

Hundred and five reports on blood levels of specific nutrients were identified from 57 studies. Blood levels of many nutrients in stroke patients showed significant differences compared to controls. For 64% of nutrients lower levels were observed; for 7% of nutrients increased levels were observed, while for 29% there were no significant differences. In general, observed reductions in nutrient levels were independent of the phase (acute-subacute-chronic) after stroke.

Conclusion:

Our results show that stroke patients have lower blood levels as compared to controls for many nutrients that are involved in recovery and repair processes after stroke. These findings underline the presence of a suboptimal nutritional status after stroke. The inclusion of specialized nutritional interventions to support recovery after stroke should receive consideration, in the multidisciplinary context of stroke rehabilitation.

Disclosure of Interest:

L. Broersen Other: Employee of Danone Nutricia Research, S. Guida Other: Employee of DanoNutricia Research, A. Cetinyurek Yavuz Other: Employee of Danone Nutricia Research, N. van Wijk Other: EmployeeDanone Nutricia Research, A. van Helvoort Other: Employee of Danone Nutricia Research, A. Michael-Titus: NoDeclared, M. Lansink Other: Employee of Danone Nutricia Research

Keywords: Blood levels, malnutrition, micronutrients, neurorehabilitation, stroke


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