



SYMPOSIUM ABSTRACT BOOK

When nutritional care can improve patients' outcomes in older adults. Are we doing everything we can?

Satellite Symposium

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Society (EuGMS) - Helsinki, Finland

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FOR HEALTHCARE PROFESSIONALS ONLY

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AGENDA

Introduction

CHAIRPERSONS:

Prof Kaisu Pitkälä, MD, PhD.

Research Director, Department of General Practice and Primary Health Care. University of Helsinki, Finland.



Ad.Prof Merja Suominen, PhD.

Department of General Practice and Primary Health Care. Helsinki University Central Hospital, Helsinki, Finland



Changing the patterns of nutritional care in the ORTHOGERIATRIC wards

Prof Alfonso Cruz-Jentoft, MD, PhD.

Chair of the Geriatric Department. Hospital Universitario Ramón y Cajal (IRYCIS), Madrid, Spain. Past President of the European Geriatric Medicine Society (EuGMS).



Malnutrition, sarcopenia and frailty: corner stone in the management of the ONCOGERIATIC patient

Prof Paula Ravasco. MD, RD, MSc, PhD.

Professor of Medicine, Nutrition and Scientific Research, Centre for Interdisciplinary Research in Health (CIIS-UCP), Universidade Católica Portuguesa, Centre for Interdisciplinary Research Egas Moniz (CiiEM), Lisbon, Portugal.



Challenges in the care of SARCOPENIC DYSPHAGIA in older adults with malnutrition

Dr Elisabet Sánchez, MD, PhD.

Consultant in Geriatric Medicine. Mater Private Network in Cork, Ireland.



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Introduction



Prof Kaisu Pitkälä, MD, PhD.

Chair biography

Prof Pitkälä is professor emerita of General Practice at the University of Helsinki and researcher at the Helsinki University Hospital.

She has designed and participated in 20 randomized, controlled trials (RCT) on frail older people from which several care models have been implemented in health and social care. She has participated in two completed EU-projects (on nutrition: PROMISS; exercise on frailty: SPRINTT) and currently participating and leading Finnish RCT in one ongoing EU project: nature as intervention in loneliness (RECETAS). In addition, she has been conducting following longitudinal epidemiological studies: Helsinki Businessmen Study (HBS) from 1974, Helsinki Long-Term Care Nutrition and Drug Study from 2003 and Helsinki Ageing Cohort Study from 1989 -.

She is leading several large multi-disciplinary research groups of senior researchers conducting these studies. She has published 461 peer-reviewed scientific articles, 164 reviews or book chapters; 27 books, and 118 popular articles. She has supervised 30 doctoral PhD students who have completed their theses. She has received several honourships.

She has had a number of scientific reviewer's tasks for international research foundations and been a reviewer for more than 50 international journals (incl. BMJ, JAMA Int Med, and all major geriatric journals). She has been a board member in several scientific societies and she is a member in editorial boards/international advisor of following peer-reviewed research journals: JAMDA, Eur Geriatric Medicine; Experimental Gerontology, Journal of Nutrition, Health and Aging, Aging Clinical Experimental Research and Age Ageing.





Ad.Prof Merja Suominen, PhD.

Chair biography

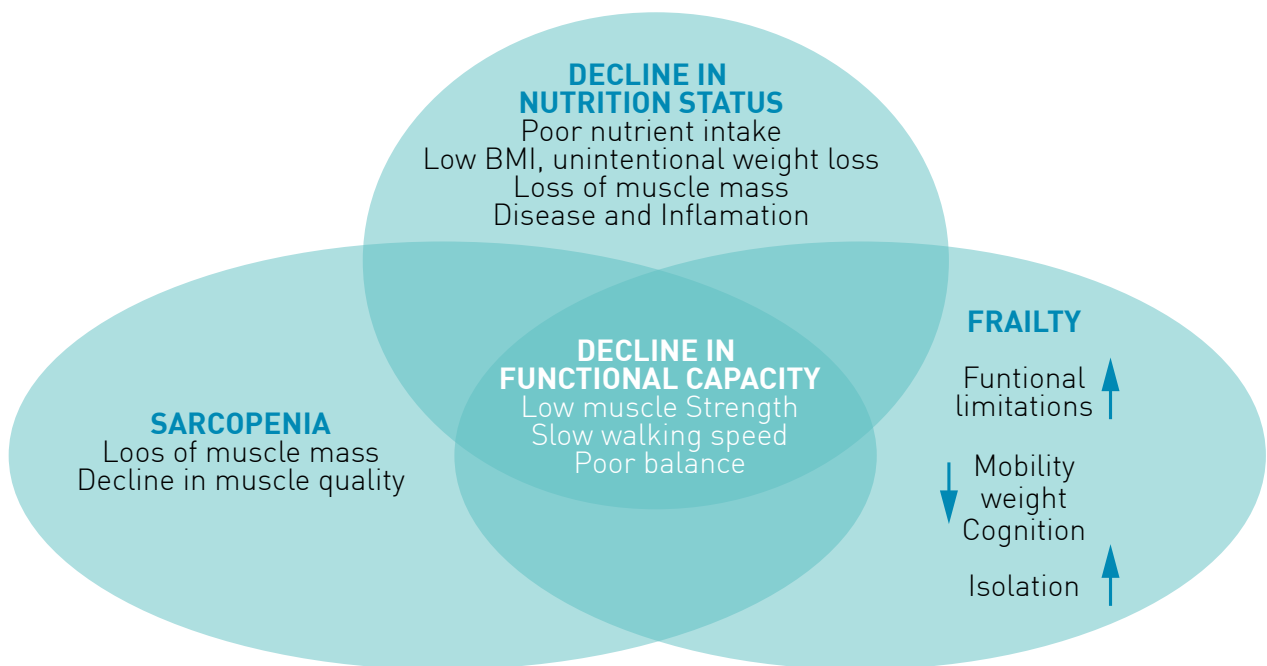
Ad. Prof Suominen is an executive director in the Society for Gerontological Nutrition in Finland and researcher at the University of Helsinki, Department of General Practice and Primary Health Care, and Helsinki University Central Hospital, Unit of Primary Health Care.

She has designed and participated several randomized, controlled trials on older peoples' nutrition and nutrition counseling including people with memory disorders, low protein intake and frailty. She participated in completed EU-projects on nutrition called PROMISS. In addition, she has been conducting longitudinal epidemiological studies: Helsinki Long-Term Care Nutrition and Drug Study from 2003 and nutrition part of the Helsinki Ageing Cohort Study in the year 2023. She has published 54 peer-reviewed scientific articles, 15 reviews or book chapters, and several popular articles.



Abstract

During the past 25 years malnutrition, frailty and sarcopenia have become core syndromes in geriatrics. Extensive research regarding the development of these syndromes has started to open up the interaction and mechanisms behind this triad.



The significance of malnutrition in prognosis and importance of nutrition management among older patients was introduced by geriatric research. Multimorbid and especially hip fracture and cancer patients were considered a target group for nutrition treatment. It was shown already in 2002 in randomized trials that nutritional supplements improve the prognosis of older people at risk of malnutrition¹ and nowadays recent guidelines (ESPEN, ICFSR) on clinical nutrition and hydration in geriatrics support the use of it in order to support adequate nutrition and hydration in older persons and to maintain or improve nutritional status and improve the clinical course and quality of life².



Older persons with malnutrition or at risk of malnutrition with chronic conditions shall be offered ONS when dietary counselling and food fortification are not sufficient to increase dietary intake and reach nutritional goals.

ESPEN GUIDELINE, Grade of recommendation GPP - Strong consensus (100% agreement).

Hospitalised older persons with malnutrition or at risk of malnutrition shall be offered ONS, in order to improve dietary intake and body weight, and to lower the risk of complications and readmission.

ESPEN GUIDELINE, Grade of recommendation A - Strong consensus (100% agreement).

After discharge from the hospital, older persons with malnutrition or at risk of malnutrition shall be offered ONS in order to improve dietary intake and body weight, and to lower the risk of functional decline.

ESPEN GUIDELINE, Grade of recommendation A - Strong consensus (100% agreement).

Oral nutritional supplements offered to an older person with malnutrition or at risk of malnutrition, shall provide at least 400 kcal/day including ≥ 30 g of protein/day.

ESPEN GUIDELINE, Grade of recommendation A - Strong consensus (97% agreement).

When offered to an older person with malnutrition or at risk of malnutrition, ONS shall be continued for at least one month. Efficacy and expected benefit of ONS shall be assessed once a month.

ESPEN GUIDELINE, Grade of recommendation GPP - Strong consensus (100% agreement).

For malnourished polymorbid medical hospitalised patients or those at high risk of malnutrition, nutrient-specific ONS should be administered, when they may maintain muscle mass, reduce mortality or improve quality of life.

ESPEN GUIDELINE, Grade of recommendation B - Consensus (89% agreement).

Consider protein supplementation and/or protein rich diet for older adults with sarcopenia.

ICFSR GUIDELINE, Strength of evidence: Conditional - Certainty of evidence: ++.

ONS: oral nutritional supplementation, GPP: Good Practice Point.



The link between nutrition and muscle health underpins the importance of maintaining an optimal nutritional status in the prevention of muscle function deterioration. Physical inactivity associated with bed rest due to hospitalization or as a result of acute events (falls, fractures, etc.) or chronic disease (cancer) increases the risk of sarcopenia and frailty, highly prevalent conditions in older adults.

Sarcopenia has been defined by European Working Group on Sarcopenia in Older People 2 (EWGSOP2) in 2019³. The definition¹ focuses on low muscle strength as a key characteristic of sarcopenia, uses detection of low muscle quantity and quality to confirm the sarcopenia diagnosis, and identifies poor physical performance as indicative of severe sarcopenia. With these new recommendations, EWGSOP2 called for healthcare professionals treating patients at risk for sarcopenia to take actions promoting early detection and treatment. This also encouraged more research in the field of sarcopenia in order to prevent or delay adverse health outcomes that incur a heavy burden for patients and healthcare systems.

Unlike sarcopenia, frailty still does not have a consensus definition. It may be defined as accumulation of geriatric problems, diseases, symptoms and signs (Frailty Index)⁴. It has also been defined as Frailty Phenotype, focusing on physical symptoms and signs (unintentional weight loss, self-reported exhaustion, weakness, slow walking speed, and low physical activity)⁵. Both definitions have shown strong prognostic validity regarding disabilities, quality-of-life, falls and mortality.

ACUTE EVENTS AND CHRONIC DISEASES THAT POSE A RISK TO PATIENT OUTCOMES IN OLDER ADULTS. NUTRITION

A group of people vulnerable to protein-energy malnutrition, sarcopenia and frailty are older people admitted and post-discharged from the Orthogeriatric Services. Falls are common with ageing, and one-third of people over 65 years old will fall each year. Hip fractures are considered the most serious fractures. For many people, a fracture is usually a significant and unexpected event. This can lead to loss of self-confidence, poor performance in daily activities and disabilities with a debilitating impact on poor nutritional intake and malnutrition period⁶. The importance of adequate energy-protein intake, calcium and vitamin D for maintaining skeletal integrity and improving dietary intake is crucial. The ESPEN Guidelines recommend (R43, Grade A, strong consensus 100%) to offer ONS postoperatively to improve dietary intake and reduce the risk of complications in older patients with hip fractures.²

Older adults with cancer are another vulnerable group of people for malnutrition, sarc/cachexia, and frailty. Malnutrition is highly prevalent (41%) and represents one of the mechanisms that contribute to sarcopenia in these patients. Their treatment, particularly chemotherapeutic agents, leading to anorexia, nausea and fatigue, exacerbate pre-existing muscle atrophy in older adults through pathways that increase proteasome activity, activate mitogen-activated protein kinase and extracellular regulatory kinase signaling, and induce mitochondrial dysfunction.^{7,8}



Lately sarcopenia and frailty concepts have been expanded to oral sarcopenia and oral frailty. Swallowing difficulties and dysphagia are common in old age, and they are associated with sarcopenia⁹. Whereas presbyphagia (slow swallowing, prolonged meal duration, age-related condition) is often asymptomatic, dysphagia is a consequence of diseases and symptomatic: it indicates a risk for aspirations and further complications. Swallowing difficulties are related to malnutrition and development of weight loss and frailty.

Nutritional care plays a key role in treating eating difficulties, malnutrition, and weight loss in patients admitted into the orthogeriatric services, patients with cancer, and older adults with sarcopenic dysphagia, especially when recovering from those illnesses. There is strong evidence from randomized controlled trials that management of malnutrition, sarcopenia and frailty with nutritional supplements and physical exercise is beneficial for these patient groups¹⁰⁻¹².

Why are these three prevalent wasting conditions: 1) malnutrition, 2) sarcopenia, and 3) frailty are observed frequently in older adults with hip fracture, cancer, and dysphagia in hospitals and the community? Are we doing everything we can?

In this symposium we will briefly review the importance of nutritional care among patients in orthogeriatric wards, patients with cancer, and with sarcopenic dysphagia and guide on how to manage them and improve their health.

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Prof Alfonso J. Cruz-Jentoft, MD, PhD.

Changing the patterns of nutritional care in the ORTHOGERIATRIC wards

Speaker biography

Prof Cruz-Jentoft is a specialist in Geriatric Medicine. He is Chair of the Geriatric Department at the Hospital Universitario Ramón y Cajal in Madrid, and Associate Professor of Geriatrics at the Universidad Europea de Madrid, Spain. He also chairs the Spanish National Board of Geriatrics and is corresponding member of the Royal National Academy of Medicine of Spain.

Founder and Past President of the European Geriatric Medicine Society (EuGMS), he is currently Editor-in-Chief of European Geriatric Medicine, the official journal of this society and coordinates the European Working Group on Sarcopenia in Older People (EWGSOP). Member of the WHO Clinical Consortium on Healthy Ageing, he serves in the Editorial Board of most major geriatric medicine journals (Age Ageing, J Am Geriatr Soc, JAMDA, JNHA, Aging Clin Exp Res). Recognized in 2022 as Highly Cited Researcher (Clarivate).



Abstract

Hip fracture is a true geriatric syndrome: its incidence increases with age, it has a high mortality (around 20% at one year) and almost half of the patients will never recover the baseline functional status.

Malnutrition is prevalent in hip fracture patients on admission and increases rapidly; some 58% of those receiving rehabilitation will be malnourished^{1,2}. Malnourished hip fracture patients have higher mortality, postoperative delirium, impaired cognition, more functional dependence with delayed mobilization and impaired gait at hospital discharge, a higher risk to end in a nursing home and of suffering periprosthetic fractures.

Although evidence is conflicting due to different baseline management of fracture and the complexity of studies, a recent meta-analysis shows that nutritional therapy is associated with a significant reduction in mortality (RR 0.61) and complications (RR 0.67) and improved grip strength in patients who are recovering from a hip fracture³. Orthogeriatric care is also associated with a shorter length of hospital stay and lower in-hospital and 1-year mortality (14%) and delirium⁴. Full orthogeriatric care always includes hydration and nutrition care. ESPEN recommended in the nutrition guidelines for older persons that hip fracture patients should receive routine postoperative ONS as part of a multidimensional, multidisciplinary team intervention⁵. Recent clinical guidelines of hip fracture care also include nutritional assessment and intervention as part of optimal care.

In our geriatrician-led multidisciplinary unit, we assess malnutrition and dysphagia on admission, start nutritional intervention from admission, use specific nutritional supplements (with high-quality protein, essential amino acids, calcium and vitamin D) routinely for three months, assess and treat all potential causes of malnutrition, and revise nutritional status at three months for optimization in those who still have nutritional problems. Our model may be useful to others to change the patterns of nutritional care in hip fracture care, in a quest to improve patient outcomes.

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Prof Paula Ravasco. MD, RD, MSc, PhD.

Malnutrition, sarcopenia and frailty: corner stone in the management of the ONCOGERIATIC patient

Speaker biography

Prof. MD, RD, MSc, Ph.D. Is a specialist in Immuno-haematology (OM55311), Nutritionist, Clinical Nutrition Specialist (ON0047N), Ph.D. Clinical Nutrition and Metabolism with competencies in Clinical Nutrition by ESPEN (European Society for Clinical Nutrition and Metabolism) and in clinical research by Faculty Medicine University Lisbon.

She develops her clinical activity in clinical nutrition, metabolism, and clinical medicine in the Faculty of Medicine of Universidade Católica Portuguesa (FM-UCP) Faculty Members | FM-WEBSITE (ucp.pt) Catholic Medical School (ucp.pt).

She is a professor of Nutrition, Medicine, and Scientific Research. Member of the Scientific Council scientific board | FM-WEBSITE (ucp.pt), Librarian Professor and co-coordinator of the Master Program in Science and Biomedicine, member of the Scientific and Installation Board of the Doctoral Program, coordinating the post-graduate topic/area of Clinical Nutrition and Metabolism in health and disease and Director of the International Post-Graduate Program "Nutrition and Metabolism in Cancer" of Faculty of Medicine of Universidade Católica Portuguesa/Instituto de Ciências da Saúde Postgraduate Course in Nutrition in Oncology | Instituto Ciências da Saúde da UCP e Faculdade de Medicina da UCP (ucp.pt).

Prof Ravasco is Team Leader and Principal Investigator at The Center for Interdisciplinary Research in Health at UCP & CatolicaMed Platform <https://fm.ucp.pt/investigacao/catolicamed>, CatólicaREsearch – CARE, UCP, Pure 5.20.2 (ucp.pt), Associate Professor of Physiological Biochemistry at the Instituto Universitário Egas Moniz (IUEM) and Principal Investigator at The Center for Interdisciplinary Research Egas Moniz (CiiEM), Instituto Universitário Egas Moniz (IUEM) Egas Moniz - Cooperativa de Ensino Superior

She is a member of the ESPEN Faculty and of the Guidelines committee ESPEN Guidelines (2016-), Associate Editor Clinical Nutrition - Journal - Elsevier (2018-), Specialty Chief Editor for Clinical Nutrition (specialty section of Frontiers in Nutrition | Clinical Nutrition).

Author and co-author of more than 80 original scientific articles published in peer-review journals.

Member of the Scientific Council of Conferences, Congresses, and Pre- and Post-graduate courses in clinical nutrition, metabolism, medicine, oncology.



Abstract

Cancer in elderly people is a growing problem. Worldwide, people aged >60 years old are growing faster than any other age group and it is forecast to reach 2 billion by 2050 (WHO 2013). Cancer is primarily a disease of older people (Cancer Research UK 2012); epidemiologic studies have shown that more than half of all newly diagnosed cancer patients and 71% of cancer deaths are in subjects ≥65 years old.

While there is abundant literature on the nutritional aspects both of cancer patients and elderly people, studies focusing on nutrition of the elderly cancer patients are sparse. When facing this topic, we need to acknowledge that although malnutrition and its risk are common among older cancer patients and depend on the stage of the disease (from 40% to 62%)¹, patients with cancer-associated malnutrition are one of the most underdiagnosed patient groups leading to serious consequences (Figure 1)².



Figure 1: Consequences of malnutrition in patients with cancer

Malnutrition can significantly exacerbate the development of frailty and sarcopenia because low appetite along with long-term insufficient protein and energy intake frequently lead to significant weight loss, which is one of the five criteria for a frailty phenotype.

Frailty may also represent competing risks of morbidity and mortality, regardless of cancer and its treatment. The prevalence of frailty in older people with cancer is about 40% to 50%, with a wide range of 5% to 90% depending on the patient population³.

Muscle wasting and cachexia in cancer, derive from a negative balance of protein and energy caused by various combinations of reduced food intake and metabolic abnormalities. The main features are a strong tendency toward catabolism and a negative protein–energy balance that is difficult to reverse.

Therefore, in older adults with cancer malnutrition, sarcopenia, cachexia, and frailty should not be seen as isolated entities but as conditions that can occur simultaneously or sequentially, and deficient dietary/protein intake is a common factor denominator in these patients.

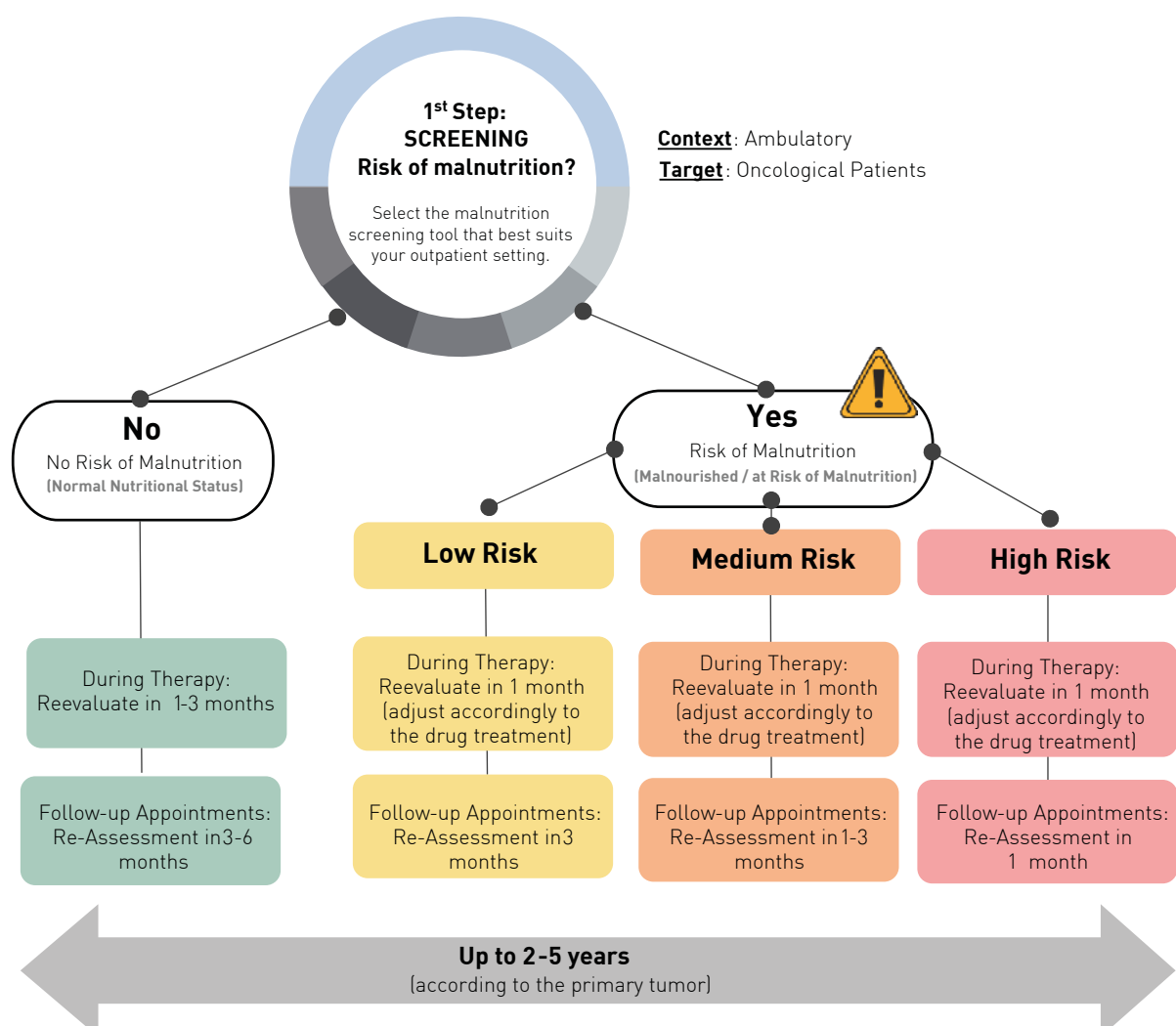
Early nutritional support has the potential to reduce the risk of therapy-threatening adverse events and to optimize the likelihood of treatment success and long-term survival. Although the optimal nutrient content for “an anti-cachexia diet” is still not defined, ESMO and the European Society for Clinical Nutrition and Metabolism (ESPEN) guidelines⁴ stress the need for maintaining calorie intake, with a special focus on assuring adequate protein. Previously reported anabolic resistance may refer to a higher threshold needed for protein synthesis in response to an anabolic stimulus in elderly patients with cancer. Thus, a higher range of protein intake (1.2–1.5 g/kg/day) seems needed to promote muscle mass balance and energy (25–30 Kcal/kg/day)^{5,6}.



As malnutrition leads to poorer prognosis and severe malnutrition is difficult to reverse, nutritional therapy should preferably be initiated as early as possible with the aim to maintain or improve nutritional status. ESPEN on nutrition in cancer patients recommends nutritional intervention to increase oral intake in cancer patients who can eat but are malnourished or at risk of malnutrition³: 1) Dietary advice 2) Treatment of symptoms and derangements impairing food intake (nutrition impact symptoms) 3) Offering ONS. High-protein nutritional formulas could help to achieve the nutritional objectives and manage patients with cancer⁷.

Our group developed a practical protocol based on clinical evidence and clinical practice that allows healthcare professionals caring for patients with cancer to identify patients with or at risk of malnutrition and/or muscle depletion for subsequent evaluation and follow-up by a multidisciplinary team (Figure 2).

Practical protocol for the identification and stratification of nutritional risk and muscle depletion in outpatients with cancer



Multidisciplinary intervention according to the nutritional risk and assessment of signs and symptoms in patients with cancer

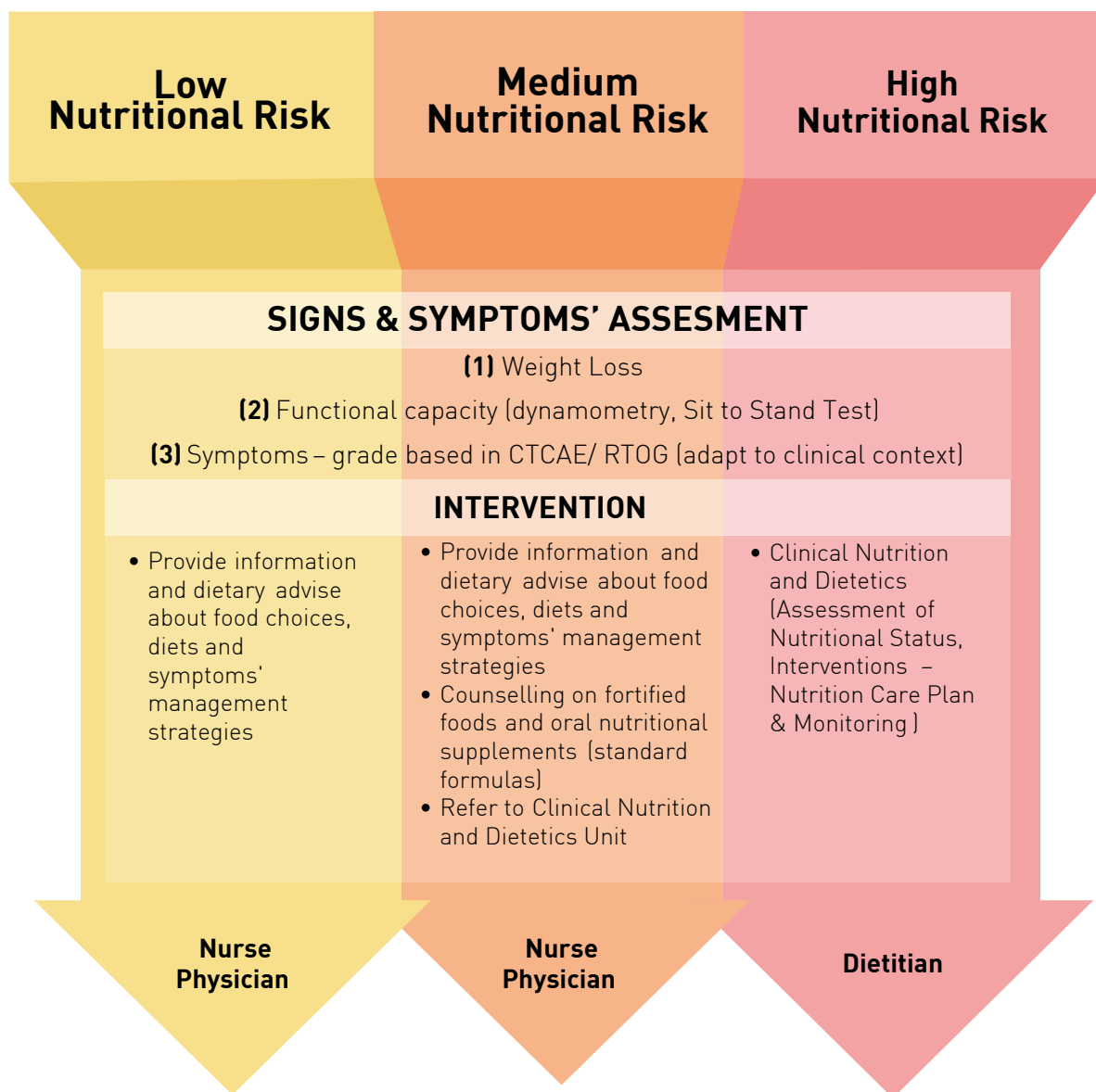


Figure 2: Early identification and intervention according to the nutritional risk in patients with cancer⁸.



Recently in 2023, the American Society for Clinical Oncology (ASCO), in collaboration with the Cancer and Aging Research Group (CARG) and the International Society of Geriatric Oncology (SIOG), developed a "Practical Geriatric Assessment Proposed Scoring and Recommendations" guideline with a multidimensional approach (physical and cognitive assessment, nutrition/weight loss, social support, psychological function, comorbid conditions, risk of chemotherapy toxicity/polypharmacy) to provide care for all older patients with cancer⁹.

Cooperation between different specialized professionals involved in cancer care is essential to assess and improve treatment efficiency and patient care.

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Dr Elisabet Sánchez, MD, PhD.

Challenges in the care of **SARCOPENIC DYSPHAGIA** in older adults with malnutrition

Speaker biography

Elisabet Sanchez-Garcia MD PhD is a physician, specialist in Geriatric Medicine. Currently working at the Mater Private Hospital in Cork, Ireland; she earned her Doctor of Medicine degree in 2014 from Complutense University Madrid. She obtained a post-doctoral Graduate Diploma in "Statistics and Research Methodology in Health Sciences" from Universitat Autònoma de Barcelona. She is a member of the Editorial Board for the Spanish Geriatric Medicine Journal (Revista española de Geriatria y gerontología) as clinical editor. She is a peer reviewer for several international journals and has authored or co-authored peer-reviewed articles in international journals and book chapters. Her recent research focuses on sarcopenia and nutrition. She is the lead investigator in a European study in collaboration with Salamanca University and CENIE (International Center on Aging). This pragmatic study addresses the effectiveness of various methods for recruiting patients with sarcopenia.

Abstract

Sarcopenic dysphagia poses significant challenges in caring for elderly individuals, particularly when malnutrition is involved. Sarcopenic dysphagia is defined as the difficulty of swallowing due to sarcopenia of the swallowing and generalised skeletal muscles¹. This problem has recently gained attention in scientific and clinical settings. Due to its novelty, the available evidence is limited, but the existing studies are intriguing and provide valuable insights for improving patient treatment. The Working Group on Sarcopenic Dysphagia has developed a validated 5-step diagnostic algorithm, which includes dysphagia and sarcopenia diagnosis, imaging tests confirming the loss of swallowing muscle mass or strength with no other identifiable cause of dysphagia considered as the main factor². Both primary and secondary sarcopenia, caused by inactivity, malnutrition, or disease, are included in the definition of sarcopenic dysphagia^{3,4}. The reported prevalence of sarcopenic dysphagia is high, reaching 81% among acute patients with pneumonia and dysphagia⁵, 45%



in older adults living in institutions⁶, and 32% in patients undergoing dysphagia rehabilitation³. Understanding the impact of oropharyngeal dysphagia on outcomes is crucial to address the challenges it presents. Research indicates that elderly individuals with dysphagia are at a higher risk of malnutrition, aspiration pneumonia, and reduced quality of life. These complications can further lead to increased healthcare utilisation, hospitalisations, and mortality rates⁷. Despite its prevalence and severity, oropharyngeal dysphagia is often under-diagnosed and left untreated. Geriatricians face numerous challenges in managing sarcopenic dysphagia. The management of dysphagia begins with Comprehensive Geriatric Assessment (CGA) and requires a multidisciplinary approach. Early diagnosis is crucial to prevent potential complications, and treatment plans should be tailored based on individual needs and capabilities, with active patient involvement in the decision-making process. A multidisciplinary team is typically involved in developing personalized treatment plans based on the underlying causes and severity of dysphagia. The primary treatments for oropharyngeal dysphagia include compensatory strategies such as postural adjustments, swallowing manoeuvres, and dietary modifications to improve safety during swallowing. Additionally, rehabilitative techniques such as exercises and therapies are employed to enhance swallowing function. Muscle strengthening methods for the treatment of sarcopenic dysphagia involve exercises targeting both oropharyngeal muscles (head-neck, tongue, and chewing muscles) and general muscles (lower extremities, anti-gravity, postural, and respiratory muscles)⁸. In addition to muscle strengthening, nutritional rehabilitation is essential. It is crucial to ensure adequate calorie and protein intake. General recommendations for nutritional rehabilitation in sarcopenic dysphagia include at least a calorie intake of >30 kcal/kg/day and a protein intake of ≥ 1.2 g/kg/day⁹. Nutritional requirements can be higher in malnourished patients. According to the available evidence, meeting these requirements positively impacts swallowing function¹⁰, tongue strength¹¹, the functional situation in individuals with sarcopenic dysphagia. Texture modification of food should be incorporated to improve the safety and efficiency of oral eating in patients with sarcopenic dysphagia¹²; clinicians should be aware that preparing food meeting protein nutritional needs with consistency modification can be challenging and time consuming for patients and caregivers, further hindering their ability to receive sufficient nutrition. The use of high-quality protein with essential amino acids oral nutritional supplement (ONS) is recommended to reinforce patients' diet and manage protein malnutrition and sarcopenic dysphagia. However, the preparation process required to thicken the ONS with thickening agents with the appropriated consistency may result in an unappealing, lumpy beverage which is likely to discourage use and lead to poor compliance^{13,14} and risk of aspiration^{15,16}. Pre-thickened-ONS are recommended and available to ensure the nutritional and consistency goals. Other relevant interventions in dysphagia treatment include education, ensuring oral hygiene¹⁷, treating periodontal diseases, managing xerosis, and reviewing and adjusting medications. Geriatricians can also play an essential role in prevention of sarcopenic dysphagia. Sarcopenic dysphagia can result from iatrogenic interventions¹⁸, such as unnecessary inactivity¹⁹ or oral intake restrictions, inappropriate nutritional care management, iatrogenic diseases, or adverse drug events. Continued research and clinical trials are essential for advancing our understanding and developing effective management strategies for this condition.



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