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

Speaker biography

Prof. Paula Ravasco, MD, RD, MSc, Ph.D. is a specialist in Immuno-haemotology (OM55311), Nutritionist,Clinical Nutrition Specialist (ON0047N), Ph.D. Clinical Nutrition and Metabolism withcompetencies 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

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Prof Ravasco is Team Leader and Principal Investigator at The Center for Interdisciplinary Research in Health at UCP & CatolicaMed Platfform 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] .

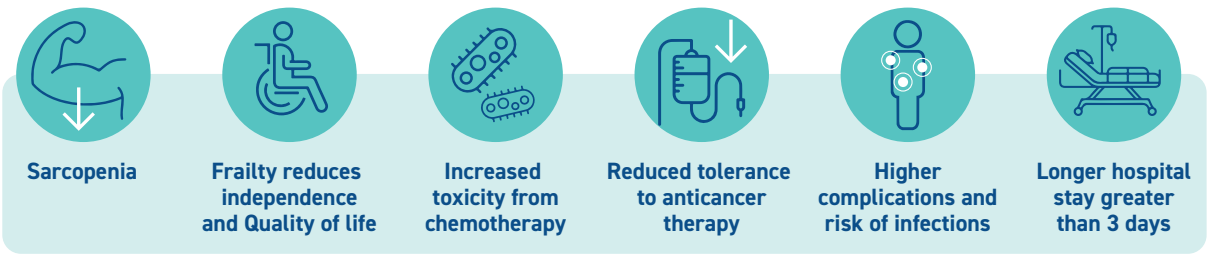


Figure 1: Consequences of malnutrition in patients with cancer.

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 population[3].

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.

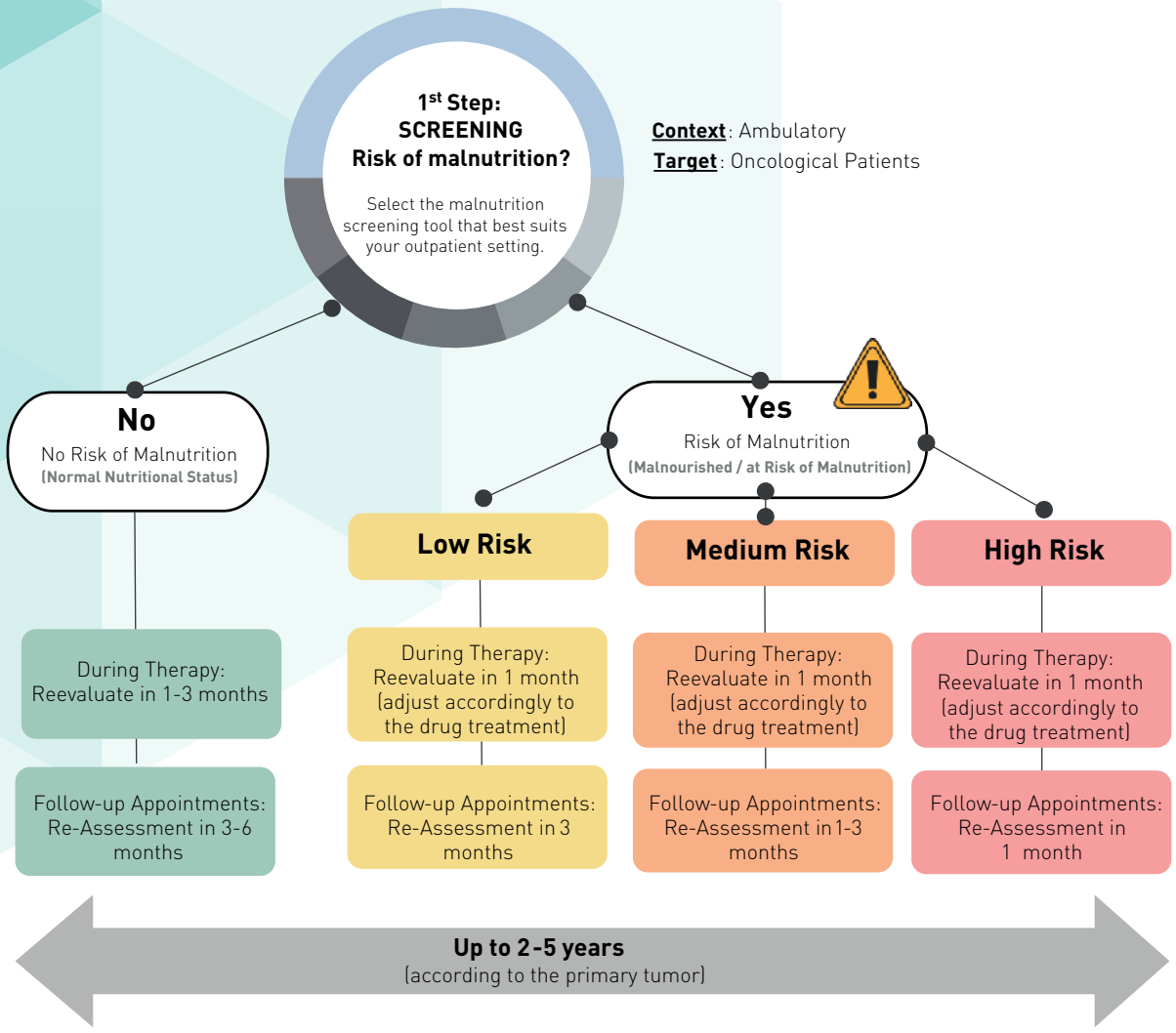
Therefore, in older adults with cancer malnutrition, sarcopenia, cachexia, and frailty should not be seen as isolated entities but as conditions that can occur simultaneously or sequentially, and deficient dietary/protein intake is a common factor denominator in these patients.

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) guidelines[4] 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 malnutrition[3]: 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 cancer[7].

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



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

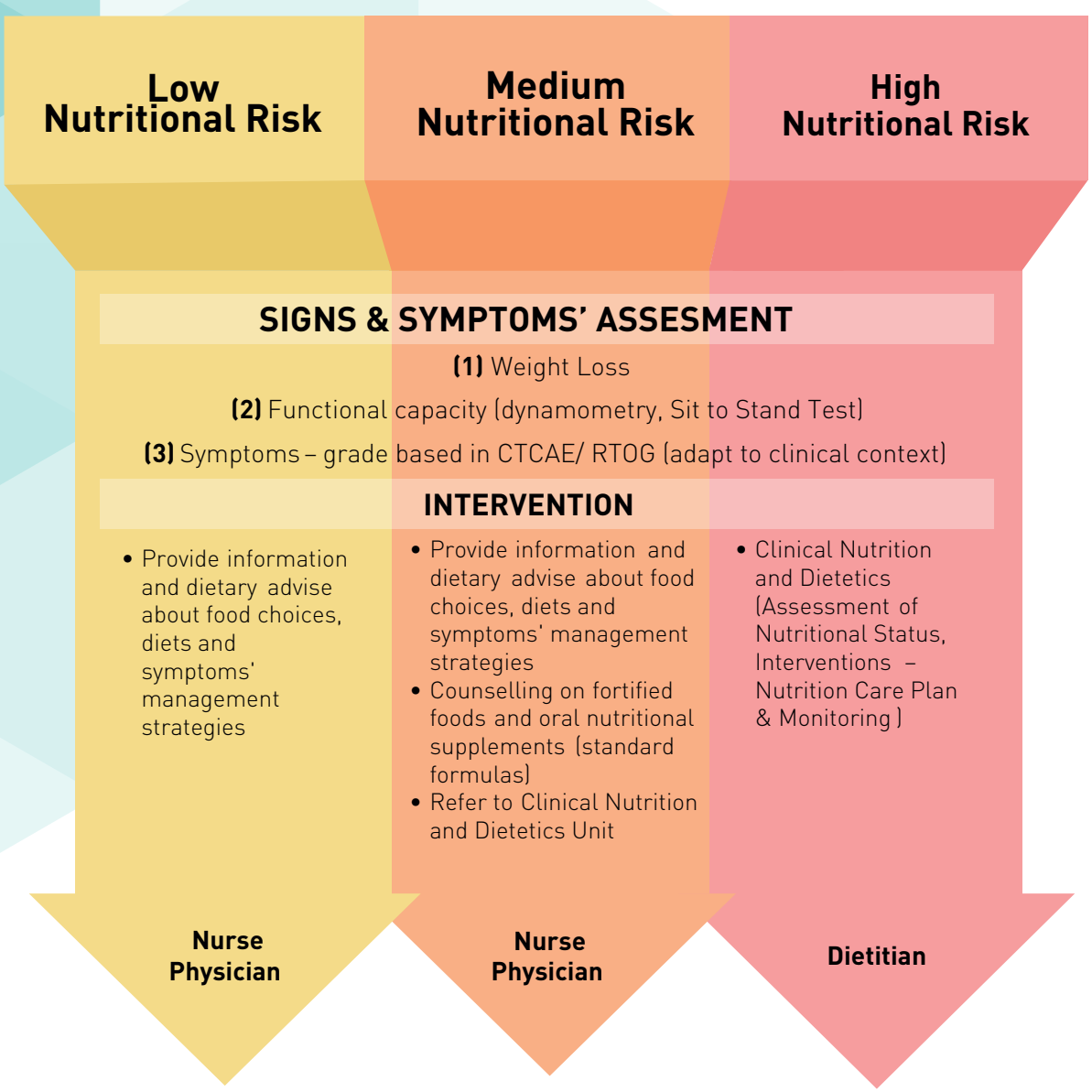

Figure 2: Early identification and intervention according to the nutritional risk in patients with cancer[8].

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 cancer[9].

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

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Watch the 18 minute conference talk with Prof Paula Ravasco and hear about MALNUTRITION, SARCOPENIA AND FRAILTY: CORNER STONE IN THE MANAGEMENT OF THE ONCOGERIATIC PATIENT

https://youtu.be/f3yhUufMjsQ

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