DIGESTIVE CANCERS EUROPE

NUTRITION IN DIGESTIVE CANCERS FACT SHEET

Nutrition - Its Impact on the Quality of Life of Patients

Cancer is a multidimensional disease requiring multidisciplinary treatments capable of integrating a wide range of therapies. Nutrition is a central aspect of oncology, influencing the development of the disease, cancer symptoms, response to, and recovery after treatment(s) as well as improving the prognosis of the disease. It has a powerful impact on the quality of life of patients, both at the clinical and social levels, modulating anxiety and preserving personal connections.

Nutritional intervention includes nutrition counselling and education, oral nutritional supplements, and enteral and/or parenteral nutrition support, and is recognised as supportive therapy for cancer patients.

Advantages Of Professional Nutritional Interventions:

- Improved nutrient uptake
- Reduced treatment related toxicity & side-effects of cancer
- Reduced hospitalisation
- Reduced dose-density in radiation and medical oncology treatments
- Increased opportunities for surgical and drug treatment
- Improved physical function & maintenance of muscle mass
- Modulated anxiety
- Maintained functionality
- Preserved social connections
- Improved quality of life and overall prognosis

Malnutrition - Remains Overlooked in Digestive Cancers

Malnutrition can be defined as the deficiencies, excesses, or imbalances in a person's intake of energy and/or nutrients. Minimal weight loss during chemo/radiotherapy has been associated with reduced survival. Up to 87% of patients can develop malnutrition, and 15 to 40% of patients report weight loss already at diagnosis.[1,2]

Malnutrition can manifest in a range that goes from **obesity** to **underweight**. Both conditions remain overlooked in digestive cancers. Underweight can progress to **cachexia**, a specific form of malnutrition driven by a negative energy balance with an increased basal metabolic rate and inflammation. It is characterised by loss of lean body mass, weight, muscle wasting, and impaired immune, physical and mental function.

Sarcopenia is another serious condition related to malnutrition. It is characterised by a decrease in muscle mass with a negative impact on strength and physical function and diminished basal metabolic rate, which can decrease quality of life. It relates to a worse prognosis. This pathology is often overlooked in obese or overweight patients: **you may be experiencing changes in your body composition even though, your body weight looks normal.**

Research suggests that up to 20% of cancer patients may die because of the consequences of malnutrition, rather than cancer itself.[3]

Nutrition Counselling is Essential

People affected by digestive cancers (colorectal, gastric, oesophageal, pancreatic and liver cancers) are one of the most vulnerable groups at risk of suffering nutritional complications. The functioning of the digestive tract is often mechanically and physiologically altered by the presence of a malignant tumour(s) or by surgical intervention(s).
Some digestive cancers are associated with a fast and deep detrimental weight loss that can interrupt or complicate their treatment and ultimately deny them access to vital surgery. **Because of their pathophysiology, all patients with digestive cancer are at high nutritional risk.**

For digestive cancer patients, weight loss is a predictor of poor outcomes and a risk factor for mortality. On the contrary, preoperative oral immunonutrition (based on substances - aminoacidic, probiotics, and minerals - able to modulate the immune system) for gastrointestinal cancer patients has been associated with diminished risk of postoperative infectious complications and overall hospital stay. Early diagnosis of malnutrition can significantly reduce the number and length of post-surgical stays in patients with digestive cancer, confirming that early nutritional therapy has the potential to significantly improve outcomes.

Personalized nutritional counselling, education, and monitoring are essential in digestive cancers. Along with symptoms management, they have been shown to improve nutritional and non-nutritional outcomes, such as quality of life, disease progression, treatment toxicity and mortality. Furthermore, personalised nutritional intervention can have a lasting beneficial effect on the health and wellbeing of patients in the long term.

1. Lu Z, Yang L, Yu J, et al (2014) Change of Body Weight and Macrophage Inhibitory Cytokine-1 during Chemotherapy in Advanced Gastric Cancer: What Is Their Clinical Significance? PLoS ONE 9:e88553. https://doi.org/10.1371/journal.pone.0088553
2. Wigmore SJ, Plaster CE, Ross JA, Fearon KCH (1997) Contribution of anorexia and hypermetabolism to weight loss in anicteric patients with pancreatic cancer. British Journal of Surgery 84:. https://doi.org/10.1002/bjs.1800840214
3. Muscaritoli M, Arends J, Bachmann P, et al (2021) ESPEN practical guideline: Clinical Nutrition in cancer. Clinical Nutrition 40:2898–2913. https://doi.org/10.1016/j.clnu.2021.02.005

Current Situation Challenges

For most patients with digestive cancers in Europe, nutritional interventions are not a reality. **Insufficient resources are dedicated to implementing nutritional services that cannot be properly applied.** There is a strong need for nutritionists and dietitian experts on gastrointestinal cancer treatments to work in coordination with other healthcare professionals. There is a clear need to strengthen their role in patients' treatment. The importance of nutrition also needs to be recognized by physicians and nurses, as many of them are the ones responsible for providing nutritional advice for cancer patients to make up for the lack of expert nutritionists.

Misinformation is of critical concern regarding the importance of nutrition when treating patients with cancer. In many countries, clinicians are still not totally aware of the impact of nutritional intervention on the life and health of patients and when they are **the lack of clear, easy access and evidence-based guidelines specific to digestive cancer patients creates a burden for clinicians to advocate for nutritional support.**

Nutritional intervention should be personalized considering the strong relationship between diet and social-cultural aspects. Nutritional intervention should incorporate patients' preferences based on their stories, needs and concerns. **The strategy of nutritional intervention must include the patient's perspective, building a critical discussion and interchange of opinions between the patient and the nutrition expert.**

The nutritional approach requires closeness and practicality. **Access to a nutritional team should be agile and patients need to feel there is an open door to communicate with their nutritionists and dieticians, especially in digestive cancers.** The feeling of continued nutritional and clinical support can create a bond of trust that can improve a patient's quality of life creating an open dialogue that can help health professionals and patients make crucial decisions together. For example, addressing concerns about artificial nutrition.

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Nutritional counselling is also a moment of education and empowerment for the patient. When patients lack access to nutritional help within their healthcare system, they often turn to private nutrition services; relying, in some cases, on uncertified professionals who may enlist interventions that could endanger their health or disrupt their treatment.

The creation of nutrition skills for patients and families will also be important during the survivorship period. **Digestive cancer survivors have less access to nutritional counselling, although they still need support.** Structures providing nutritional intervention for cancer survivors are extremely important to ensure good recovery, quality of life and social and economic rehabilitation. Still, the gap between supply and demand is huge.

With a major barrier being a lack of information and dialogue on the impact of nutrition on cancer among health care professionals and policymakers, DiCE believes the following improvements are needed:

- **The reimbursement of oral supplements for all patients.** Even in regions where patients have access to nutritional counselling, they often must pay out of pocket for the supplements they need to live. Sometimes, life-long supplements are required.

- **Ensuring the correct prescription and monitoring of artificial nutrition at home.** Patients' preferences should always be considered and standardised-quality criteria, at no additional cost for patients and their families, should be used.

- **The reformulation of protocols for patients with digestive cancer -** given the urgency for these patients to access prehabilitation programs.

- **The introduction of better protocols and tools for studying patients' body composition** to detect malnutrition.

- **The integration of the patient perspective into the design of easy to access and evidence-based guidelines.**

- **The establishment of new nutritional guidelines and recommendations for immunotherapy treatments** and other new drugs based on novel technologies.

- **The education of health care professionals and the general population** on the beneficial role of nutrition in cancer and for a healthy lifestyle.

- **Better access to training programs for health care professionals** working with cancer patients on nutritional assessment and counselling.

- **The creation of registries on the impact of nutritional support on cancer to ensure the study of the cost-effectiveness of nutritional interventions on a broader scale.**

- **The performance of more research on malnutrition, sarcopenia, cachexia, and cancer to cover relevant knowledge gaps that exist in our understanding of these conditions.**

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For more information:
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