

## CLINICAL SUMMARY

# Early Nutrition Intervention Significantly Improves Quality of Life in Patients with Cancer

A published review focused on the relationship between nutrition-related improvements in quality of life and outcomes in cancer patients.

Oncology treatment such as surgery, chemotherapy, and radiation produce additional acute and chronic symptoms which jeopardize food intake and nutritional status.

Cancer and its treatment result in severe biochemical and physiological alterations which are associated with decreased quality of life. It also has a profound impact on a patient's physical functioning, psychological well-being, and social life. Cancer increases a patient's metabolism which leads to an increased need for, and use of, calories for energy. When the body does not have access to the additional calories it needs, it begins to break down muscle mass and fat tissue to supply this needed energy. Many of the oncology treatments being used (i.e., surgery, chemotherapy and radiation) can produce symptoms which can jeopardize food intake and nutritional status and contribute further to weight loss and muscle wasting.

Cancer-related weight loss is different from simple starvation, in which refeeding restores normal nutritional status. In cancer patients, tumor-associated metabolic abnormalities frequently prevent the restoration of muscle mass even when additional calories and protein are provided. Consequently, cancer-related malnutrition can evolve into cancer cachexia (physical wasting with loss of weight and muscle mass). Ultimately, cachexia represents the immediate cause of death in 10-22% of all cancer deaths.

Metabolism is modified by tumor growth contributing to an increase of energy expenditure resulting in progressive wasting.

## CLINICAL SUMMARY

In 2007, a group of researchers published a review of the literature focused on the relationship between nutrition-related improvements in quality of life and outcomes in cancer patients. The main findings from the literature included the following:

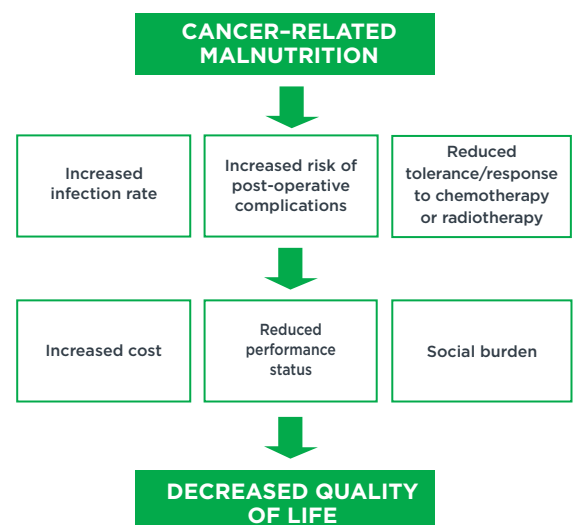
- Malnutrition and cachexia are common during cancer
- Weight loss and other nutrition-related symptoms are associated with low quality of life
- There is a clear correlation between food intake and quality of life
- A low quality of life is related to a reduced response to anti-tumor treatments.

Based upon the findings, the researchers concluded:

- Patient-tailored nutritional intervention should be prescribed (i.e. diet counseling, oral nutritional supplementation, enteral or total parenteral nutrition)
- Early nutrition intervention can reduce or reverse poor nutritional status, improve performance, and improve quality of life
- The role of nutrition intervention in curative care is to increase treatment response and tolerance, decrease complications, and reduce morbidity
- The role of nutrition intervention in palliative care is to improve quality of life by improving clinical symptom management (nausea, vomiting, etc.).

Cancer profoundly alters physical function, psychological well-being and social life of patients, as seen on Fig. 1. During the acute phase of curative oncology treatment, such as surgery, chemotherapy and radiation, adequate nutrition support has been shown to improve short-term outcomes by reducing the number of complications, thus shortening the recovery phase. The findings from this review demonstrate the improvement in patient outcomes that can be achieved when nutritional care is integrated into the oncology treatment plan. Furthermore, the assessment of quality of life should be part of the evaluation of any nutrition support to optimize its adequacy to the patient's needs and expectations.

Fig. 1



## NUTRITION CONCLUSION

Proactive and continuous nutritional care should be integrated into global oncology care because of its significant contribution to quality of life.

Marin Caro MM, Laviano A, Pichard C. Nutritional intervention and quality of life in adult oncology patients. *Clin Nutr* 2007; 26: 289-301.