

Effectiveness, costs and organization of oral nutrition therapy

Summary

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Malnutrition causes temporary or permanent health damage and is caused by food and/or nutrients deficiency. Malnutrition can occur in connection with illness or without any accompanying disease. Malnutrition slows recovery from the underlying disease, increases the risk of complications, and the need for external assistance. Depending on the diagnosis, up to half of hospitalized patients and one-third of outpatients may be affected by malnutrition. According to a study conducted in Estonia in 2012 (data from Tartu University Hospital), the prevalence of disease-related malnutrition was nearly 80%. According to medical guidelines, to prevent health damage related to malnutrition in various conditions, it is necessary to temporarily or continuously administer nutrients to ensure an adequate intake of age-appropriate food energy, nutrients, minerals, trace elements, and other essentials required by the body. The aim of this report was to analyse the effectiveness and cost-efficiency of oral nutritional supplements (ONS) and assess the optimal organization of nutritional therapy in Estonia.

Oral nutritional supplements are indicated for the prevention and treatment of malnutrition associated with an underlying disease and related medical conditions and complications. In certain cases, such as hereditary metabolic diseases and gastrointestinal absorption disorders, it is also indicated for the treatment of the underlying disease, as well as for preventing and treating its exacerbations and complications.

Nutritional therapy with ONS involves the selection and application of various methods as a result of a nutritional therapy consultation. One of the methods is the use of oral nutritional supplements, which are high in food energy and protein content and balanced with micronutrients. ONS are used in addition to regular food and its enhancement to compensate for a significant deficit in food energy or nutrients, to prevent or alleviate malnutrition.

Studies on the effectiveness of ONS in various target groups, including both children and adults, showed that patients who used ONS experienced greater increases in body weight, body mass index, and hand grip strength compared to those who received regular food. It was found that patients who received ONS had approximately half the risk of developing complications and their hospital stay was about two days shorter. However, the results regarding mortality were inconsistent. The quality of the studies varied and heterogeneity was high. Therefore, it can be said that there is low quality evidence regarding the effectiveness of ONS in malnourished patients.

Published cost-effectiveness studies evaluated the use of ONS in conjunction with nutritional therapy consultation compared to nutritional therapy consultation alone, without the use of ONS. These studies found that the use of ONS is cost-effective. In some studies, the use of ONS resulted in greater gains in quality-adjusted life years and lower costs compared to not

using ONS. It was also found that the use of ONS could lead to up to 21% savings in treatment costs due to a reduced need for healthcare services.

A budget impact analysis was conducted with a five-year perspective. The analysis assessed the cost to the Health Insurance Fund of nutritional therapy consultations and the use of ONS, assuming a reimbursement rate of 75% for modular ONS in both inpatient and outpatient care. The reimbursement rate for complete ONS for adults, children, and disease-specific ONS was set at 50% in inpatient care and either 50% or 75% in outpatient care. Additionally, the analysis considered the savings generated by the expansion of the target group using ONS, due to reduction in length of hospital stay, antibiotic use, enteral and parenteral nutritional therapy, and specialist consultations. Considering the savings from the reduced use of these healthcare services, the cumulative cost associated with ONS reimbursement and nutritional therapy consultations over five years amounts to between €1.96–2.4 million or €4.2–4.67 million, depending on whether the outpatient ONS reimbursement rate is 50% or 75%.

The organization of oral nutritional therapy, including the use of ONS, varies by country. ONS are prescribed and treatment is monitored by both primary care (general practitioners) and specialists. Effective oral nutritional therapy applies all the basic principles of nutritional therapy. Currently, the Estonian Health Insurance Fund does not reimburse consultations for oral nutritional therapy. Inpatient food costs included in the daily hospital bed rate can be used to cover the cost of ONS. To ensure the accessibility and quality of oral nutritional therapy, it is recommended that the Estonian Health Insurance Fund begin reimbursing oral nutritional therapy and include the relevant services in the list of healthcare services.