Read & Watch: Lecture Summary

Dr. Karen Freijer

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Costs and cost savings of optimal nutrition intervention in disease related malnutrition

Speaker biography

Dr Karen Freijer is trained as a dietitian/nutritionist and obtained her PhD in 2014 as a nutrition scientist on the topic of Nutrition Economics - a newly established field. Together with two health economists and another nutrition scientist, she has been able to have this new field officially recognized within the International Society for Health Economics and Outcomes Research (ISPOR). The first and only nutrition item within this primarily pharma focused society.This Society's mission is to promote HEOR excellence to improve decision making for health globally.

For more than 20 years she has been giving lectures, training courses and webinars about health and disease (internationally), with a focus on the role of (mal)nutrition, always including the role of exercise and behavior as they are interrelated factors.

Since September 2019, she is working as a general manager for Partnership Overweight Netherlands (PON). This partnership is an umbrella organization of medical and paramedical professional associations, patient organizations, scientific and public health organizations and health insurers. The PON is committed to tackle overweight and obesity and advises the government on policy in the field of overweight and obesity in the Netherlands.

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Abstract

Without nutrition, life is not possible. Already in the womb sufficient nutrition is needed for the embryo to evolve. From that time, we have to eat and drink every day to provide our body with the nutrients needed to meet the requirements to prevent illness as well as to manage metabolic stress situations. Disease, injury, trauma or surgery are examples of such stress situations in which there is an increased need for specific nutrients to activate our immune system and recovery among others. Whenever this increased need for specific nutrients is then not fully met by the daily nutritional intake, a nutritional imbalance will be the result: malnutrition is then a fact.

Literally malnutrition means 'poor' (mal) nutritional status, relating to the needed quality and/or quantity of available nutrients in the body, in which both over-nutrition (too many nutrients) and under-nutrition (insufficient nutrition) are forms of malnutrition. The synonym for malnutrition in the clinical setting is therefore undernutrition.

Disease-related malnutrition (DRM) is the type of malnutrition that is triggered by illness or disease. It is the primary reason for malnutrition in developed countries and is still a major public health problem with a high prevalence and deleterious consequences on patients across different healthcare settings leading to a high clinical as well as economic burden to society. With adults at the age of 65 years and older being 33% more likely than younger adults to experience malnutrition, the aging of the population will increase the worldwide burden of malnutrition. This increase will be further enhanced by the so called 'double burden of malnutrion' now facing many countries worldwide. The World Health Organization (WHO) has recognized this growing coexistence of undernutrition along with overweight, obesity or diet-related noncommunicable diseases (NCDs).

This session is about DRM as a whole (with or without inflammation) which is leading to health impairment associated with high (health care) cost; 2-3 times greater than for a non-malnourished patient.

A cost of illness analysis estimated an additional total cost of disease related malnutrition (DRM) in elderly of € 1.5 billion compared with the well-nourished which is about four times higher than for patients in the age category of >18 and < 60[1]. Another study showed additional costs of malnutrition in nursing homes alone of € 279 million per year[2].

Also in other countries, cost of illness studies have been done and an estimate shows that malnutrition costs €170 billion a year to European countries[3].

Preventive or therapeutic strategies, including oral nutritional supplements, should be considered to improve nutritional status and will save costs. But what does the evidence say about the cost of nutritional interventions? Are they cost-effective?

While nutrition economic analyses are increasing but yet limited, several studies in elderly have been conducted to evaluate the cost-benefit and cost-effectiveness of the total dietary treatment (inc. medical nutrition) of DRM.

One of the studies we have performed in The Netherlands, showed that the use of oral nutritional supplements (ONS) for the treatment of DRM in community-dwelling older adults reduces the annual total cost of DRM from € 275.643 to € 262.657 million; a total national cost saving of about € 13 million in 2012. The additional costs of ONS were balanced due to re-/hospitalization reduction in DRM patients[4].

Another analysis showed that the use of medical nutrition with sick and malnourished elderly persons results in net benefits between € 1,433 and € 3,105 per person. For each euro that is invested in the treatment of a malnourished person society saves € 1.90 to € 4.20[5].

Elia et al. demonstrated that the use of ONS in older malnourished care home residents is cost effective relative to dietary advice[6].

Another important aspect of cost effective nutritional management of patients is the fact that dietitians are more efficient as well as more (cost) effective in nutritional counseling than other members of the healthcare professionals; after all it is their profession in which they were educated and trained. Physicians indeed have reported that they lack the time and knowledge to provide patients with appropriate nutrition advice[7,8].

The integral role that food and nutrients play in the etiology and progression of DRM is pushing health care decision makers to consider the cost and value of nutrition interventions. Improving health care through the delivery of optimal nutrition may contribute to the efficiency and sustainability of health care systems.It is important to understand the direct and indirect economic implications of nutritional interventions on the health care system and society.

During this session, the burden of DRM – with a focus on the elderly – together with cost savings of optimal nutrition intervention in this undernutrition and the importance of nutrition economics, will be shown and explained.

References

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Watch the 15 minute conference talk with Dr. Karen Freijer and hear about COSTS AND COST SAVINGS OF OPTIMAL NUTRITION INTERVENTION IN DISEASE RELATED MALNUTRITION

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