Nutrition guidance in The Netherlands: the role of the GP in the translation from population strategy to individual approach

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An important pitfall of nutritional guidance in medical practice is how to deal with the prevention paradox: a nutritional advice that is good for the population as a whole is not necessarily proven effective for the individual patient. Evidence-based guidelines are needed to support GPs to translate these advices to the individual patient. We illustrate this with two examples: obesity and undernutrition.

The Dutch Ministry of Health started a national partnership on overweight. The role of the Dutch College of GPs (NHG) in this process is to insert the GP’s perspective and to ‘translate’ the multidisciplinary guideline into a practice guideline for GPs. A systematic review on nutritional deficiency in general practice in The Netherlands showed a prevalence ranging from 0% to 13%. The ‘National Steering Committee Undernutrition’ stimulates GPs to pay more attention to undernutrition, in collaboration with the Dutch College of GPs.

The Cochrane Primary Health Care Field (Nijmegen) accommodates the Cochrane Diet and Nutrition Sub Field involving the inclusion of evidence from non-randomized studies, which are generally not included in Cochrane Reviews, but which form an important part of the evidence for the role of nutrition. From this international initiative, a national collaboration in The Netherlands between universities, researchers and the Dutch College was founded, which aims to support the foundation of practice-based nutrition counselling in the consulting room.

\textbf{Keywords.} Cochrane, general practice, nutrition, overweight, underweight.

\section*{Introduction}

The work of family physicians involves many nutrition-related diagnosis. Most patients see their GP as a good, reliable and accessible source for health information and nutrition guidance.\textsuperscript{1,2} According to a survey by the Dutch College of GPs, the majority of GPs consider it as their task to ask and inform their patients about healthy nutrition.\textsuperscript{3}

An important pitfall of nutritional guidance in medical practice is how to deal with the ‘prevention paradox’: a nutritional advice that is good for the population as a whole is not necessarily proven effective for the individual patient. The GP has to ‘translate’ the population-based advices to the individual patient. Therefore, evidence-based guidelines are needed, also based upon Cochrane Reviews.

Research on nutritional guidance is difficult because nutritional interventions are never curative, although changes in food habits can support the medical therapy. Improvement of nutritional status is not automatically correlated with improvement of functional state. And possible effects of nutritional interventions like improvement of quality of life and satisfaction are difficult to evaluate. Other difficulties with nutrition in medical practice are the heterogeneity of the intervention population in social and cultural background, the variety of providers of nutrition guidance (dietician, practice nurse and family physician) and the time delay between the intervention and the potential health effects.

All these problems are challenges the family physician has to deal with. The aim of this article is to describe how the gap between population and individual
can be bridged; we illustrate this with the examples of obesity and malnutrition.

The importance of nutrition in general practice

After the Second World War, poverty in Western countries vanished and doctors thought that nutritional problems would be over. However, since the end of the 20th century, GPs are being faced with the consequences of prosperity related to unhealthy nutrition, like diabetes type 2, overweight, hypertension, gallstones, osteoporosis, high cholesterol, cancer, alcoholism, vitamin deficiency, allergy and ectopera. For most of these diseases, dietary change is part of the treatment. From a European survey, we know that one of the limitations for GPs is that there are no dietary/nutritional tools and that GPs and nurses do not have the time, knowledge and skills to advise their patients about desirable dietary practices. In order to support GPs in their nutrition guidance, the Dutch College of GPs has been developing patient information letters (PILs; for patients) following the evidence-based practice guidelines for GPs (NHG Standards), which are highly appreciated and well implemented. At this moment, there are 290 of those PILs about various topics, of which five only about nutrition. They are written in comprehensible language, give explanation about the diagnosis, relevant investigations, pharmacological and non-pharmacological treatment like nutrition.

Many of the (at this moment: 87) practice guidelines for GPs contain recommendations about nutrition. Therefore, the Dutch College together with the Dutch Nutrition Center developed single nutritional guidance letters about the most important nutrition-related diseases and risk factors: diabetes, high cholesterol, hypertension, overweight and pregnancy. A recent survey among Dutch GPs shows that more than 90% of GPs appreciate and say that they use these PILs during the consultation.

This article describes the nutrition-related challenges for general practice with two examples: overweight and undernutrition.

Overweight

Overweight/obesity is a growing problem. According to World Health Organization in 2020, 50% of the whole world population will be overweight. In The Netherlands, the prevalence of overweight in children is 13.6% in boys and 16.8% in girls, while the prevalence of obesity (body mass index ≥ 30 kg/m²) is 2.6% and 3.3%, respectively. Only in a minority there is a medical cause, like hypothyroidism or Down syndrome. In most cases, the problem is caused by the unbalance in energy intake and expenditure, the use of saturated fat and sugars, inactivity (computer and television) and social-economic factors (urbanization, parents education level and overweight parents).

The key question is if the obese are a medical or a social problem. Many family doctors wonder if they have a responsibility for changing the lifestyle of their patients. Take the children alone, it is obvious that the medical consequences of overweight in children are overwhelming: 15–80% obese children become obese adults; 25% of obese children 4–10 years old have impaired glucose tolerance; 60% of obese children 6–17 years old have one or more additional cardiovascular risk factors, like hypertension, lipid metabolism, blood coagulation and metabolic syndrome. Many children are at risk to develop a nutritional deficiency due to their unilateral eating pattern.

The newly developed national multidisciplinary guidelines ‘Obesity for health professionals in The Netherlands’ by The Dutch Institute for Health care Improvement (CBO) and The Dutch College of GPs (NHG) (2008) recommend case finding of obese children in general practice and intervention in case of co-morbidity.

One way to deal with the problem of obesity and to connect the social and medical aspects is the start of a national partnership on overweight, which has been established by the Dutch Ministry of Health as part of their prevention policy. In this partnership, public and private organizations and medical professionals collaborate in order to implement a comprehensive programme to reduce the number of people with overweight. The NHG is in the centre of this process to evaluate the process from the GP’s perspective and to translate the multidisciplinary guideline into a monodisciplinary guideline for GPs (NHG Standard).

Undernutrition

A second nutrition-related challenge in individual care in general practice is the approach to undernutrition in the elderly. A systematic review on nutritional deficiency in general practice in The Netherlands based upon eight studies showed a prevalence ranging from 0% to 13%. Another study in The Netherlands showed that 20–30% of the elderly in hospitals, nursing homes and home care have underweight or nutritional deficiencies (Table 1).

If elderly people get sick, they loose weight. That process starts at home and continues quickly after hospital admission; after discharge, the situation is deteriorating (Fig. 1).

The clinical relevance of undernutrition is clear: ‘scorbutic/beriberi’, decreasing resistance, infection, muscle weakness, low quality of life, osteoporosis, decubitus, impaired wound healing, polypharmacy,
depression, cognitive dysfunction, anaemia, high mortality, longer hospital stay and high costs.

High-risk ‘circumstances’ in general practice related to malnutrition are as follows: an older age, immobility, bad teeth, impaired smell and taste, swallowing problems, poor psychological and social circumstances, polypharmacy, unintended weight loss, hospitalization and operations. In general practice, we see malnourishment in patients with dementia, chronic lung failure, influenza, rheumatic arthritis, decubitus, dental problems, polypharmacy, depression, alcohol abuse, stroke, cardiac failure and delirious elderly.

Recognizing and diagnosing patients with undernutrition is very complex. There are some questionnaires available like the ‘Mini nutritional assessment (MNA) Short Version’.11

Filling in this questionnaire takes about 20 minutes. The MNA contains questions about, among others, anthropometry, living situation, use of drugs, acute illness, mobility, cognitive, meals per day, vegetables, fruit, appetite and chewing.

Another questionnaire is the so-called ‘Eetmeter’ (Nutrition Questionnaire) of the Dutch Nutrition Centre. This computerized list can be used by the practice nurse. The answers are calculated automatically to energy and nutrient intake and mark nutritional deficiency clearly.

A brief questionnaire which is validated for hospitalized patients, but not for the daily work of the GP, is the Short Nutritional Assessment Questionnaire, which consists of three questions12,13:

- Did you loose weight unintentionally?
  - more than 3 kg within last 6 months?
  - more than 3 kg in the last month?
- Did you have less appetite during the last month?
- Did you use drip feed last month?

The easiest and most feasible way for a GP is to check unintentional weight loss by simple weighing of elderly people regularly. Unintended weight loss of more than 5% within a month or more than 10% in half a year indicates that the patient has an elevated risk of nutritional deficiency. This criterion is independent of the initial body weight. So a patient with overweight can be indeed malnourished.

The ‘National Steering Committee Undernutrition’ stimulates GPs to pay more attention to undernutrition, in collaboration with the Dutch College of GPs. Elements of this programme are as follows: continuous medical education, national transmural agreements between GPs, other disciplines and hospitals as well as developing a PIL.

The family physician should probably look after the nutritional status of his/her elderly patients as long as they are healthy. As soon as they become ill, the situation can deteriorate quickly.

Cochrane collaboration and nutrition
An important challenge to help increase the foundations of nutrition guidance in general practice is to enlarge the content of nutrition within the Cochrane Library via the Cochrane Primary Health Care Field (CPHCF). This became the first registered Field in October 1993. The role of this Field is to ensure that the primary care voice is heard in the Cochrane Collaboration and that reviews relevant to primary care are included.

In 2007, a collaboration of three academic departments of general practice in Auckland (New Zealand), Dublin (Ireland) and Nijmegen (The Netherlands) took over the leadership. Within The Netherlands, this international initiative is broadly based by a close cooperation of all Academic Departments of General Practice, The Netherlands Institute for Health Services research (NIVEL) and the Dutch College of General Practitioners (NHG).

One way of enabling that the products of the Cochrane Library are accepted and adopted into daily practice is the Practical Evidence About Real Life
Situations (PEARLS). These are brief summaries of relevant Cochrane Reviews in less than 200 words with the numbers needed to treat and to harm and some information on context. They are very practical to use as they have the answer in the title: ‘Vitamin C supplementation may have preventive effects in populations with a high incidence of pneumonia, and may have therapeutic effects in populations with low plasma vitamin C levels’. Whereas PILs are made for the patient, these PEARLS are available for every GP to be used in the consulting room.

The CPHCF (Nijmegen) accommodates the Cochrane Diet and Nutrition Sub Field involving the inclusion of evidence from non-randomized studies, which are generally not included in Cochrane Reviews, but which form an important part of the evidence for the role of nutrition. The aim here is improving evidence-based quality of nutrition guidance in the consulting room (http://www.cochraneprimarycare.org).

Conclusions

There is a field of tension between nutrition guidance on population level and individual guidance. In order to support and stimulate GPs to give nutritional guidance, this gap needs to be bridged and the population advices need to be translated to the individual level. The experiences in The Netherlands with the development of evidence-based practice guidelines for GPs and information letters for patients, together with the Cochrane activities, are a solid basis for practice-based nutrition counselling in the consulting room.

Declaration

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References