Patient information letters on nutrition: development and implementation[1–4]

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ABSTRACT

Background: In 1998 the Dutch College of General Practitioners (NHG) began developing patient information letters (PILs), based on the practice guidelines for family physicians (FPs) (NHG standards). Five nutritional guidance letters have since been developed with the Dutch Nutrition Center.

Methods: In August–September 2001 a survey was done among a random sample of 200 FPs who subscribe to the PILs. They received a questionnaire about the use and implementation of the PILs in general, and about the nutrition letters specifically.

Results: Responses were received from 133 FPs (67%). Of these FPs, 89% use the PILs in their practice. Only 5% of FPs say that they use the PILs on nutrition sufficiently; 32% think they should use them a bit more, whereas 63% make much too little use of the nutrition letters. The most important barriers for using the letters are that FPs do not think about them at the right moment (66%), do not know the content enough (32%), find that using them is too time-consuming (29%), have computer problems (17%), and have too little knowledge about nutritional advice (11%); only 6% do not see dietary advice as an FP's task. The most important reason for not using the nutrition letters is the fact that the letters are not integrated into their FP information system (23%).

Conclusions: Implementation of PILs takes time, and there are great advantages to integrating them into the existing Family Practice Information Systems. *Am J Clin Nutr* 2003;77(suppl): 1035S–8S.

KEY WORDS Nutrition, general practitioners, family physician, patient information letters, electronic medical registration, ICPC-diagnostic code

INTRODUCTION

The family physician's (FP) work involves several nutrition-related diagnoses (1–3). These are diverse and run from the well-known nutritional advice in diabetic and cardiovascular patients (4) to, for instance, the usual intervention in patients with chronic obstructive pulmonary disease (5). Another field of nutritional interest is the prevalence of malnutrition and its association with disease complications (6, 7) or the endless discussion about salt and hypertension (8). In other words, nutritional intervention should be part of the regular therapy.

Performing a nutritional checkup is not all that easy, however. Although simple questions can provide most of the relevant information (9, 10), FPs have limited time for providing nutritional advice (11) and their vocational training in nutrition is brief (12). Still, nutrition is considered to be an essential part of the FP's daily work (13) and stays on the FP's agenda (14). The question is, How can an FP manage to give the most evidence- or practice-based nutritional advice to each patient (15, 16)?

In 1989 the Dutch College of General Practitioners (Nederlands Huisartsen Genootschap [NHG]) started developing its guidelines (standards) on the diagnosis, investigation, and treatment of clinical conditions (17, 18). Since 1998 NHG has been distributing patient information letters (PILs). These letters follow the NHG practice guidelines and are an explanation of the diagnosis, relevant investigations, and pharmacologic and nonpharmacologic treatment in question—given in comprehensible language.

At first the PILs were on paper only. Then there were floppy disk versions. The various electronic medical systems (EMS) support the letters. Here the connection with the International Classification of Primary Care (ICPC) code diagnosis of the patient is the entrance to the supporting information material (19). Besides the NHG guidelines and the prescription advice, the PILs are integrated into this system. Finally, since the beginning of 2001 the PILs have been integrated into 3 of the 7 FP information systems (about 32% of all FPs). At the moment about 90% of all Dutch FPs use an electronic medical dossier.

The NHG members pay for these PILs; about 1500 Dutch FPs have an active subscription. But because most FPs share the letters with 1 or 2 colleagues, almost half of the 7000 Dutch FPs have access to the PILs. In September 2001 there were 142 PILs. Twice a year the FPs receive 15–20 new or updated PILs.

Besides the subscribers, all Dutch FPs received in December 2001 a CD-ROM, the so-called Electronic Prescription System, with background information for use during the consultation. It is also linked to the ICPC code for diagnosis.

In 1999 the NHG started to update the nutritional paragraphs in the relevant letters and to develop single nutritional guidance letters. These letters are computerized and even linked with the classified diagnosis (ICPC) of the patient (19). As soon as the patient's diagnosis is made, a simple connection within the patient's own electronic medical dossier can be made to the letters. Hard copies can be printed and handed out.

The development of these letters and paragraphs was a cooperative effort of NHG and the Dutch Nutrition Center. All NHG

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TABLE 1
Standards with nutritional elements from the Dutch College of General Practitioners (NHG) and the division between patient information letters on nutrition and nutritional paragraphs[1]

NHG standard	Full-size patient information letter on Nutrition	Paragraph on Nutrition
Diabetes mellitus type 2	X	
Hypertension	X	
Cholesterol	X	
Pregnancy	X	
Stomach complaints		X
Angina pectoris		X
Osteoporosis		X
Peripheral arterial vascular disease		X
Anxiety disorders		X
COPD		X
Atopic eczema		X
Depression		X
Shoulder complaints		X
Asthma		X
Urinary (tract) infection		X
Allergic and hyperreactive rhinitis		X
Low back pain		X
Enuresis nocturnal		X
General subjects (without NHG standard)		
Health nutrition for adults	X	
Advice on overweight	X	
Malnutrition (proposed)	X	

[1] COPD, chronic obstructive pulmonary disease.

practice guidelines with any nutritional scope were earmarked. After that, 2 types of diagnoses were distinguished: diagnosis needing just a paragraph on nutrition in the PIL, and diagnosis needing a full independent letter (**Table 1**). The nutritional content of the corresponding PIL was checked. With FPs and nutritionists working closely together, a balanced text was made. This concept was evaluated by the NHG editorial staff and reviewed by a nutritional scientist and a dietitian. In the meantime, a panel of 7 patients was asked to comment on the readability of the letters. After authorization of the NHG staff, the letters were published. Five letters are now complete:

- Healthy nutrition for adults,
- Nutritional advice on diabetes mellitus,
- Nutritional advice on high cholesterol,
- Nutritional advice on hypertension, and
- Nutritional advice on pregnancy.

A translated example of the diabetes letter on nutrition is given in **Table 2**.

To get an impression of the implementation of these new letters, a survey was done with the following questions:

- Do you know the PILs on nutrition?
- Do you use the PILs on nutrition?
- Do you agree with the content of the PILs on nutrition?
- Do you meet difficulties in using the PILs on nutrition?

METHODS

In August–September 2001 a small survey was done among a random sample of 200 (of the 1500) FPs who subscribe to the PILs. They received a questionnaire concerning the use of the PILs in general and about the specific nutrition letters. Informed consent was not requested. In January 2002 the nonresponders received a new questionnaire.

RESULTS

Responses were received from 133 FPs (67%): 78% male, 22% female. Eighty-nine percent reported using the PILs in their practice. The most important results of the PILs on nutrition are summarized in **Table 3**. The nutrition letters on diabetes mellitus (74%) and cholesterol (73%) are the best known. Respectively, 66% and 62% of the FPs use these nutrition letters. A high percentage—93% or more—endorse the content of the various nutrition letters.

Only 5% of FPs say that they use the PILs on nutrition sufficiently; 32% think they should use them more, whereas 63% say they make much too little use of the nutrition letters. The most important barriers to using the letters are that FPs do not think about it at the right moment (66%), do not know the content enough (32%), find that using them is too time-consuming (29%), have computer problems (17%), and have too little knowledge about nutritional advice (11%); only 6% do not see dietary advice as an FP's task. The most important reason for not using the nutrition letters is the fact that the letters are not integrated into their FP information system (23%).

DISCUSSION

Our study was just a small survey with limited participants and setup. Moreover, the PILs on nutrition had been in use for only a year at the time of the survey. Most FPs know the PILs with nutritional advice, but a minority of FPs use them in daily practice.

An FP needs to find adequate information for his or her patient during the 10 min they spend together. About 66% of the respondents explain that it can be hard to think of all the right nutritional advice while patients are still in the office. Having an electronic version of well-balanced evidence- or at least practice-based information offers great advantages—one being time savings. Integration of these PILs on nutrition with the electronic medical dossier of the patient involved allows for tailor-made counseling, so the FPs have wanted the PILs to be connected to the diagnostic code (ICPC). All the FPs agreed that having PILs developed by FP experts, nutritional experts, an editorial board, and a patients panel seemed to work well.

Moreover, using an electronic route to obtain information is becoming more and more the fashion (20), not only for patients but for medical students seeking instruction (21, 22). The electronic version via the EMS will in the future provide the possibility to consult validated nutritional websites. At those sites, more in-depth information could be gathered. Relatively complicated questions could be answered regarding, for instance, the interaction between foods and drugs, food allergies, and the relevance of functional foods in particular patients. When patients and FPs both know more, old wives' tales will have less sway over treatment, and treatment effectiveness will improve (23, 24).

CONCLUSION

Although FPs are enthusiastic about the content of the PILs on nutrition, their implementation takes time. Digital integration offers great advantages in this domain.

TABLE 2
Patient information letter from the Dutch College of General Practitioners (NHG) on diabetes mellitus type 2 dietary advice

This information letter explains again what has been discussed with you.
You can take your time to read it through at home.

Diabetes mellitus

Diabetes mellitus is a disorder that is caused by having too much glucose in your blood (blood sugar). Having too much glucose in your blood will eventually damage your blood vessels and nervous tissues. Therefore, the aim of the treatment is to achieve a normal blood sugar level. When the blood sugar level is normal, there is less chance of developing, for instance, cardiovascular diseases.

Dietary advice for patients with diabetes mellitus

A healthy lifestyle is important for everyone. This involves eating healthy food, doing regular physical activity, maintaining normal weight, and not smoking. The basis of any type of dietary advice is a healthy and varied diet. When you have diabetes mellitus, you should do the following:

- Use sugar in moderation only,
- Eat regularly, and
- Replace products containing saturated fat with products containing unsaturated fat or low-fat products.

Use sugar in moderation only

Contrary to what doctors used to think, people who have diabetes mellitus can eat sugar.

Therefore, it is not necessary to buy special sugar-free products for diabetics. For instance, you can choose ordinary jam. Yet generally it is healthier not to eat too much sugar. This will help to maintain or achieve a normal body weight.

Eat regularly

Eat 3 meals/d and a few snacks in between. Eating regularly is important to maintaining a normal blood sugar level. For people who take blood sugar–lowering medicine (pills or insulin), it is even more important to eat regularly.

Replace products containing saturated fat with products containing unsaturated fat or low-fat products

- Choose (diet) spreads, oil, and liquid baking and frying products instead of butter or solid margarines and products for baking and frying;
- Choose lean meat and lean sliced meat instead of fat meat and sliced meat such as sausages and bacon;
- Choose 12% fat cheese, 16% fat cheese, or low-fat cheese spread instead of full-fat cheese (28% or 35% fat cheese and cream cheese);
- Choose skim or low-fat milk and milk products instead of full-fat milk and milk products;
- Choose snacks that are low in fat instead of tarts, biscuits, cake, chocolate, etc. People with diabetes mellitus should also watch their cholesterol level. Therefore, eat as little as possible (at most once every 2 wk) of liver, kidney, fatty fish (eel), and prawns, and no more (preferably less) than 3 eggs/wk.

Body weight

If you are overweight, slimming can help to reduce your blood sugar level. A reduction in weight of 10% will have an effect. However, sensible slimming and maintaining a healthy weight is not simple. If necessary, ask your doctor for advice.

General dietary advice that is particularly relevant for people with diabetes mellitus

Use daily, on average, the following quantities:

- 1.5 L of liquid (such as water, coffee, tea, fruit juice, or soft drinks), of which 300–450 mL is skim milk or low-fat milk (products);
- 175–245 g brown or whole-grain bread, thinly spread with (diet) spread;
- 20–40 g cheese;
- 15–30 g low-fat lean meat such as pork fillet, chicken or turkey fillet, or roast beef as sandwich filling;
- 200 g fruit;
- 150–250 g potatoes, 125–175 g cooked rice, or 125–175 g cooked pasta (such as macaroni or spaghetti) or pulse vegetables (dried peas and beans, legumes);
- 150–200 g all other types of vegetables;
- 100 g lean meat, 100 g fish (once or twice a week) or poultry, or an egg (maximum 3/wk); and
- 15 g (diet) spread, oil, or liquid fat for preparing the hot meal.

Snacks

Sensible snacks are:

- dry biscuits, popcorn, Japanese mix, savory sticks, toast with low-fat cheese spread or fish;
- raw vegetables (cauliflower florets, cherry tomatoes, cucumber, radish, celery, carrots, etc);
- nuts such as walnuts, hazelnuts, and almonds (nuts are rich in fat, but it is mainly unsaturated); and
- one portion of fruit or a sandwich.

Alcohol in moderation

One glass of alcohol is allowed from time to time. But do not drink >2 glasses/d and avoid having a drink every day. Alcohol can raise your blood sugar level.

Do you have any questions?

If after reading this information letter, you still have any questions, you can discuss them during your next consultation.

TABLE 3
Percentage of family practitioners who know, use, and agree with the content of patient information letters (n = 133)

Letter	Know	Use	Agree with content
		%	
Healthy nutrition for adults	49	19	95
Nutritional advice on diabetes mellitus	74	66	98
Nutritional advice on high cholesterol	73	62	96
Nutritional advice on hypertension	52	33	93
Nutritional advice on pregnancy	45	24	96

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