

Nutrition-Related Prevention: An Interdisciplinary Strategy

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Proper nutrition is essential for growth, development, and well-being. In addition, many dietary factors contribute to preventable illness and premature death. For example, diet is a factor in five of the leading causes of death in the United States: heart disease, cancer, stroke, diabetes mellitus, and atherosclerosis. Together, these diseases account for about 70% of all deaths in this country.¹

An important aspect of family physicians' clinical care of patients is prevention, including screening tests, counseling and educational interventions, immunizations, and chemoprophylactic regimens.² The regular use of these preventive measures has been shown to reduce morbidity and postpone mortality.³ However, even though behavioral intervention (counseling and education) may be among the most important interventions available to reduce morbidity and mortality of patients, many studies have shown the rate of delivery to be low.^{3,4} This is especially true in the area of nutrition education.

Family physicians are well aware of the relationship between diet and health. They encounter on a daily basis patients who require nutritional intervention to achieve health goals. Because nutrition-related issues constitute a large part of patients' concerns and problems, the family physician should be able to provide sound, up-to-date nutrition advice and counseling. Unfortunately, most medical education programs are limited in their emphasis on nutritional assessment and counseling techniques. As a result, many physicians provide nutrition information based on their own personal experiences or biases. Frequently family physicians also rely on their nursing or office staff to provide nutrition education. In many cases, however, staff members do not have adequate training and education to provide this service. Instead, family

physicians should coordinate a patient's care with a registered dietitian when dietary and lifestyle changes are necessary to reduce a patient's risk of developing associated health problems.

Locating Nutritional Professionals

Once a nutrition problem is identified, how does the family physician locate qualified nutrition professionals and assess their qualifications? This may not be as difficult as it first seems. For example, in many communities there are consultant dietitians in private practice who are professionally trained to carry out detailed dietary evaluations, make specific recommendations for changes based on the physician's evaluation, and provide follow-up care as necessary to achieve nutritional and health objectives.

Consultant dietitians are registered dietitians (RD), which indicates they have obtained the necessary education in nutrition and dietetics from an accredited college, and have passed a registration examination to ensure qualifications. Registered dietitians must also achieve an annual required number of continuing education hours to maintain certification. Some states have passed licensure laws to protect dietitians' credentials and to specify their scope of practice.

Family physicians can locate qualified dietitians as follows:

1. By contacting the local dietetic association that is an affiliate of the state chapter of The American Dietetic Association (Referral Service: 312-899-0040, ext. 4853). Each local dietetic association normally maintains a list of dietitians who practice in the geographic area.
2. By contacting the Consulting Nutritionists Practice Group of The American Dietetic Association. They publish an annual National Directory, divided by cities and states, of all dietitians in private practice who are members (Referral Service: 206-956-1367).
3. By checking the yellow pages of the telephone directory under headings such as "dietitians," "nu-

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tritionists," and "weight management programs." Call to inquire about the credentials and backgrounds of the persons listed, specifically regarding registration, licensure, and areas of expertise.

4. The nutrition services department of most hospitals can recommend qualified registered dietitians. Also the outpatient or ambulatory care centers of these hospitals often have dietitians on staff who can provide nutrition counseling services.
5. Local health-related agencies may employ registered dietitians who can be a resource for nutrition information and counseling. These include local chapters or organizations such as the American Diabetes Association, American Heart Association, American Lung Association, American Cancer Society, Dairy and Nutrition Council, and National Hospice Association. Health departments (state, county, and city); university-affiliated cooperative extension services; and WIC (women, infants, and children) feeding programs are also good resources for nutritional information and educational materials.
6. Some HMOs and PPOs either employ or have service contracts with registered dietitians. If one practices as a part of a managed care organization, inquire as to whether coverage is provided for this service. If not, request that they acquire registered dietitians in private practice as part of their provider list.

Referrals to Registered Dietitians

Once a qualified dietitian is located, several methods can be used to obtain nutrition-related services. The dietitian can be hired to provide these services in the family physician's office either as an employee or on a contractual basis. This method is especially effective when several physicians are in a group practice because adequate referrals can be maintained. For solo family physicians, dietitians can be available to provide counseling in the physician's office for a limited number of days or hours per week. On-site nutrition services have the advantages of personal communication between physician, staff, and dietitian; access to all medical records and tests; and convenience for the patients, who can visit the physician and dietitian on the same day.

If on-site counseling is not practical, referrals can be made to practicing dietitians in the community who maintain their own offices. Inquire in advance about the procedure for making referrals.

Responsibilities on the part of the dietitian and the physician should be negotiated to ensure efficient and

Table 1. Physician and Dietitian Responsibilities Regarding Nutrition Referrals

Physician Responsibilities	Dietitian Responsibilities
Contact dietitian for referral and encourage patient follow-up	Set-up appointment with patient
Share pertinent data about patient	Perform nutritional assessment and provide appropriate nutrition counseling based on client needs
Primary diagnosis and other nutrition-related problems	Keep accurate written records including:
Dietary recommendations	Nutritional assessment, diet history, and evaluation
Pertinent clinical and laboratory data and medications	Plan for implementation including short-term and long-term goals
Pertinent psychological and social data	Copies of communications to physician that include a summary of assessment and impressions, plans for follow-up, and estimated number of treatment visits needed
Provide adequate follow-up including repeat laboratory analysis (blood glucose, lipids, etc) and positive reinforcement for behavior changes	

appropriate care of patients. Some of these responsibilities are outlined in Table 1.

When to Make Nutrition Referrals

Certainly family physicians and selected staff, such as nurse educators, can answer general patient inquiries regarding nutritional concerns and can provide basic printed materials on nutrition. This can include information on such things as good food sources of potassium; how to moderately reduce salt (sodium) intake; whether to use vitamin and mineral supplements and what are appropriate amounts; how to reduce caffeine intake and food sources of caffeine; general tips on lowering fat, saturated fat, and cholesterol in the diet; and recommendations for starting a moderate exercise program. In the course of daily practice, however, many physicians cannot set aside the time for detailed nutritional counseling of patients who require more intense and long-term intervention. Some examples of nutritional-associated medical problems that might better be referred to a registered dietitian are outlined in Table 2.

Reimbursement for Nutrition Services

One of the perceived barriers regarding referrals to registered dietitians is cost. Patients may feel they cannot afford nutrition counseling, especially if long-term care is

Table 2. Diseases Requiring Nutrition Counseling

Disease/Condition	Nutrition Intervention
Diabetes mellitus (Type I and Type II)	Multiple lifestyle changes required related to diet, medication, and exercise. Diabetes is often accompanied by other medical problems, including hypertension, hyperlipidemia, obesity, heart or kidney disease, that require in-depth nutrition counseling.
Gestational diabetes	Maintaining normal blood glucose is essential to normal fetal growth and development. Diabetes management strategies, including home glucose monitoring and dietary modifications, are required until delivery and sometimes postpartum.
Obesity	Patients whose weight is more than 20% over their desired body weight and who have, or are at risk for, weight-related medical problems usually require long-term nutritional intervention to develop lifestyle-adjustment strategies for sustained weight loss.
Eating disorders (anorexia, bulimia, and compulsive binge eating)	Require intense psychological and nutritional intervention; family physician needs to be able to screen for and identify these disorders and refer patients to qualified psychologists, dietitians, or treatment centers that specialize in necessary treatment.
Hyperlipidemia	Patients with moderate to severe hyperlipidemia, especially those with additional risk factors for coronary artery disease, and those in the higher risk age group (under the age of 60) need in-depth nutrition and follow-up to evaluate effectiveness.
Renal and liver disease	Multiple nutritional modifications require expertise of registered dietitian.
Sprue/gluten enteropathy and other food allergies; malabsorption syndromes	Require extensive dietary assessment, evaluation, and modifications; may require special nutritional supplements and products.
Malignancies	Patients undergoing radiation and/or chemotherapy often develop nutritional problems such as anorexia, cachexia, weight loss, food aversions, and compromised immuno-functioning, and would benefit from nutrition counseling.
Elderly and/or chronically ill	More susceptible to health and nutrition fraud. May be depressed, lack social support, and have limited resources, which can affect nutritional status and quality of life.

required. Many insurance companies reimburse for nutrition counseling if it is essential in the treatment of a medical problem such as diabetes mellitus, hyperlipidemia, gestational diabetes, high-risk pregnancy, or renal

failure. Also, managed health care plans such as HMOs, PPOs, and IPAs often include nutrition services, provided by a registered dietitian, as one of the covered benefits. Medicare will reimburse for nutrition services provided by a registered dietitian under Part B "incident to" provision if the dietitian is an employee of the physician and the service provided meets the related criteria. Whether insurance reimbursement is available or not, nutrition intervention is always more cost-effective than treating the medical complications associated with untreated health problems.

Conclusions

Family physicians often need to provide accurate, timely nutritional advice to their patients. The family physician and office staff, such as nurse educators, usually can give general nutritional guidance to patients, answer questions, and perform basic nutritional assessments. However, since dietary change is a process and not a single event, many patients require ongoing nutrition counseling to achieve and maintain health goals related to various disease states. Registered dietitians are qualified nutrition professionals who can perform nutritional assessments, make dietary evaluations, and provide the appropriate nutritional counseling for patients with complex nutritional problems. With little effort, family physicians can locate these health professionals in their communities and make appropriate referrals, thus ensuring that their patients will receive the best possible care and be more able to make and maintain desirable lifestyle changes.

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