

Contemporary Themes

Printed information for the lay public on cardiovascular disease

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Summary and conclusions

Booklets from several countries on various aspects of cardiovascular disease, intended for distribution to the public and to patients, could be classified into three categories dealing with primary prevention, secondary prevention, and management. Much material was duplicated, whereas some diseases were completely ignored. Only two types of booklets should be available. One would deal with preventive measures for all cardiovascular diseases, while the other would be a series of booklets on individual conditions, combining information on secondary prevention and on management.

Introduction

There is increasing awareness of the need for patients to be informed about their illnesses, and the use of written information has helped patients to understand and comply with their doctor's advice^{1,2} and also reduced the frequency of consultation about minor illnesses.³ Many booklets and other forms of publications have been produced for patients with cardiovascular disease. We review booklets distributed to the public and patients without charge, and do not concern ourselves with the many books on health published in recent years.

Review and classification of publications for patients

In an attempt to determine the ideal approach to communication with patients with cardiovascular disease we wrote to the relevant authorities of 11 countries, six of which were English-speaking, and received 130 booklets and pamphlets for review. In most countries, a range of booklets and leaflets covering various aspects of cardiovascular disease was available; in a few cases publications were in more than one country—for example, America and Canada. Similarly, the same booklets in different languages were distributed in Denmark and Sweden. Most (80%) were published by national heart foundations, while the remainder came from individual hospitals and companies.

The publications varied considerably in length, from short leaflets⁴ to booklets several pages long.⁵ They also varied in presentation, some being entirely without illustrations⁶ while others had diagrams, photographs, or cartoons.⁷ Much of the variation in presentation and in emphasis may be related to differences in the objectives of the booklets and the audiences at which they are aimed.

We identified three types of publication based on the intended readership. The first type concerned itself with the healthy general

public, the second with patients who had cardiovascular problems, and the third dealt with specific aspects of managing cardiovascular disease. There was considerable overlap between the three groups.

PRIMARY PREVENTION

Publications on primary prevention were addressed to the general public, and in particular to those who were healthy and free from cardiovascular disease. The intention was to reach those people who might be at risk because of an unhealthy lifestyle. They were usually in leaflet or pamphlet form, easy to understand, and intended to make their impact on the reader without demanding too much attention. Most emphasised the prevalence and danger of cardiovascular disease, listed the risk factors, and urged the reader to take evasive action.⁷ Some included more detailed information about the physiology of the cardiovascular system and the important types of disease associated with this system.⁵ Others were more specific, dealing with one particular aspect such as hypertension,⁸ smoking,¹⁰ exercise,⁴ or diet.¹¹ Booklets on hypertension emphasised the asymptomatic nature of the condition and the importance, even for seemingly healthy people, of having blood pressure checked.⁹ Much dietary information was available, mainly supplied by commercial concerns, which provided extensive information on low-cholesterol or low-calorie diets based on their particular products. The many publications on smoking reflect the widespread concern in recent years about this hazard.

SECONDARY PREVENTION

Booklets on secondary prevention were directed at patients known to be suffering from a specific cardiovascular disorder, and the aim of most was to influence the patient with early disease in the hope of preventing progression. These were generally longer and more detailed than booklets dealing with primary prevention, the rationale presumably being that the prospective reader has better reason to be interested in the subject and may in fact be actively seeking information. These commonly discussed a specific condition¹² (table) and again included some general physiology, information on risk factors, and usually a more detailed account of the particular illness in question. Nearly

Classification of 130 publications on cardiovascular disease

Subject	No	Type
Hypertension	31	1, 2, 3
Diet	19	1, 2
Heart attack	17	1, 2, 3
Smoking	14	1, 2, 3
General	13	1
Exercise	8	1, 2
Angina	6	2, 3
Stroke	6	3
Pacemakers	4	3
Congenital defects	2	3
Rheumatic fever	2	1, 2, 3
Heart drugs	2	3
Congestive heart failure	1	3
Coronary artery surgery	1	3
Heart murmurs	1	3
Pregnancy and the heart	1	3
Varicose veins	1	2, 3
Anticoagulants	1	3

Type 1 = primary prevention; 2 = secondary prevention; and 3 = management.

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one-quarter of the publications dealt with hypertension, the emphasis being on its importance as a risk factor for cardiovascular complications and the need for continuous treatment even in the absence of symptoms.

MANAGEMENT

The booklets on management aimed at helping the patient and his family to cope with a particular problem. These publications also were longer than those aimed at primary prevention. They gave more detailed practical information on day-to-day management and drug treatment, and often included advice on dietary restriction and exercise. An example of this type is the Australian booklet on stroke,⁸ in which good practical advice is given to patients with stroke and their families on adjusting to life at home. Booklets dealing with heart attack explained the purpose and the working of the coronary care unit, management in the first few weeks after an attack, and advice on rehabilitation.⁹

Discussion

Although the booklets reviewed could be broadly classified into three categories, in many cases two or more of these aims were evident in the same booklet.⁶⁻¹² For example, changes in lifestyle advocated in the publications on management often are also relevant to secondary prevention, while those booklets on hypertension aimed at secondary prevention also included much practical information on management. The practice of producing separate booklets for each cardiovascular disease and others for each of the risk factors gave rise to a multiplicity of publications in which much material was duplicated, whereas some diseases, such as peripheral vascular disease, were almost completely ignored. Infective endocarditis and anticoagulant treatment, areas in which knowledge could be important, receive little attention in booklets, but instead warning cards are often given at special clinics.

A more rational approach to communications with patients would be to have two types of booklet available. One would deal with preventive measures for all cardiovascular diseases. There should then be a series of booklets on the various individual conditions, combining information on secondary prevention and on management.

The advice of professional educators or advertising personnel could be helpful in designing these booklets. Green¹³ has summarised several principles for improving the effectiveness of communication. These include brevity, organisation, readability, repetition, and specificity. The need for brevity means that material must be carefully selected for inclusion. The booklet should be well structured with information organised into labelled statements, important points being presented first and repeated at least once. The reading ability of the audience should not be overestimated, and instructions should be as specific as possible. Illustrations and cartoons may help emphasise the points of major importance.

These principles are particularly relevant to booklets on primary prevention, which are intended for widespread distribution to an audience which, it must be assumed, is not particularly interested in the subject. The aim must be to present a direct message that will prompt the appropriate action, either in a short leaflet, or perhaps more effectively in a booklet providing additional information for the interested reader. In any event the message must be presented in a way that can be appreciated without reading the small print. There should be brief statements about the prevalence of cardiovascular disease; the various forms it may take; and the risk factors, with a short, unambiguous sentence about the importance of each; the booklet should emphasise that attention to these risk factors can reduce the risk of disease, and should end with a set of direct instructions to (a) stop smoking, (b) have blood pressure checked, (c) reduce overweight, (d) control the amount of salt and cholesterol in the diet, and (e) exercise regularly.

The booklets on secondary prevention and management are

intended for a different audience and should therefore be longer and more detailed than the leaflet on primary prevention, but the same principles in design apply. Separate booklets should be available on coronary heart disease, stroke, peripheral vascular disease, hypertension, rheumatic fever, anticoagulants, congenital heart disease, and pacemakers. The first part of the booklet would be similar in the first four instances to the one on primary prevention, but would deal in more detail with the physiology of the cardiovascular system and the way in which the disease produces its effects (appendix (a)). The risk factors should be described in slightly more detail than in the primary prevention booklet, and it should be emphasised that controlling these may have a beneficial effect even though the disease has already begun (appendix (b)).

The second part should describe the particular condition in more detail, again emphasising that the risk of further deterioration may be minimised. Information on management specific to the condition in question should be provided (appendix (c)) and space allowed for recording information relevant to the individual patient, including drug treatment and ideal weight, along with blood-pressure measurements, prothrombin times, or other determinations when appropriate. Finally, weight tables and dietary information should be provided, these again being common to each of the booklets in the series (appendix (d)).

Each booklet should be designed so that the patient can conveniently carry it.

Introducing such a series of booklets at national level would result in considerable economy both in production costs and in the time spent by various institutions in designing their own publications for education of patients. An additional advantage would be the standardisation of information presented to patients, which should help to eliminate some of the confusion that appears to have arisen about the causes and treatment of cardiovascular disease.¹⁴

Appendix

EXAMPLES FROM THE CHARITABLE INFIRMARY'S BOOKLET ON BLOOD PRESSURE

(a) *What is blood pressure?*

Everyone has a certain level of blood pressure—it is the force of the blood pumped from the heart against the walls of the arteries. High blood pressure means that the heart has extra work to do and it increases in size to overcome the pressure. Also the blood vessels thicken to contain the higher pressure of the blood. This reaction in the heart and blood vessels leads to heart disease and vascular disease, such as stroke.

What is normal blood pressure?

Blood pressure is measured with a sphygmomanometer, which gives two pressure levels in millimetres of mercury—written as mm Hg; the high level is the systolic pressure and the low level is the diastolic pressure.

What harm does high blood pressure do?

If the blood pressure is higher than normal over a prolonged period there is an increased risk of stroke, heart attack, and kidney failure. These illnesses can be prevented if the blood pressure is brought down by treatment.

How do you know if you have high blood pressure?

Most people with high blood pressure feel perfectly well and do not have any complaints. It is therefore very important to have your blood pressure checked from time to time—say, once a year.

(b) *What can you do to lower your blood pressure?*

Not everyone with high blood pressure needs tablets. Sometimes

modifying your lifestyle will bring your pressure down to normal, but even if tablets are necessary smaller doses will be needed if you lead a healthy life.

THE FOLLOWING POINTS ARE VERY IMPORTANT

Smoking

Cigarette smoking does cause a rise in blood pressure, but, more important, the combination of smoking and high blood pressure greatly increases the risk of heart attack.

Diet

Your diet may be important in four ways:

Calories—If you are overweight (table 1) your blood pressure tends to rise, and reduction of weight often results in a considerable fall in blood pressure. Ask your doctor how many calories you need daily (table 2).

Salt—Excess salt in the diet may contribute to high blood pressure, and if you add a lot of salt at the table or eat many salty dishes you should reduce your salt intake. Try not to add salt while eating and avoid salty foods.

Cholesterol and fat—There is evidence that diets rich in cholesterol and saturated fats contribute to heart disease and stroke. If your diet contains a large amount of these substances you should reduce the amount (table 3).

Potassium—If you are taking a diuretic (water) tablet to control your blood pressure, the potassium concentration may fall. This is more likely to happen if your diet is low in potassium (table 4).

Exercise

It is now accepted that exercise is beneficial in preventing heart disease, and regular exercise is encouraged.

Regular check-up

It is most important that you attend your doctor regularly for a blood pressure check. There must be close co-operation between you and your doctor if your blood pressure is to be controlled and the complications prevented.

(c) Drugs for blood pressure

General measures such as weight reduction, giving up smoking, and salt restriction may not be enough to lower your blood pressure, and you will then need one or more drugs to keep your blood pressure within normal limits. If tablets are prescribed be sure to take these regularly as instructed, otherwise your blood pressure will not be well controlled. If the tablets upset you in any way do not be afraid to tell your doctor as there are many drugs available, and it is nearly always possible to find one that does not cause unpleasant side effects. Your blood pressure may vary, and your tablets may have to be adjusted from time to time. Always make sure that you have an up-to-date

prescription and an adequate supply of tablets. Remember, once drug treatment is required it will usually be necessary for the rest of your days.

Never stop drugs without consulting your doctor, as your blood pressure might rebound dangerously out of control. Always let your doctor know if you are or intend to become pregnant.

You will usually be placed on one of the following groups of drugs, or a combination of two or more. [A brief description of the diuretics, beta-blockers, vasodilators, and miscellaneous drugs follows.]

(d) Tables in the booklet: table (1) ideal body weight; (2) calorie chart and some general dietary advice; (3) low-, medium-, and high-cholesterol foods; and (4) potassium-rich foods.

Pages for data recording:

Date	Place of BP rec	Time	BP S D	Tablets		
				Name and strength	No	
					AM	PM
24/7/80	Surgery	10 am	124/86	Pressure 10 mg	T	T

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