## MANAGEMENT OF HYPERLIPIDAEMIA — A PROTOCOL Edwin E. J. Martin

A protocol is an agreed method of dealing with a process that relates to medicine which is written down, worked to by a group of people and which is regularly reviewed.

- 1. One needs a protocol to ensure consistent management between doctors;
- 2. One also needs a protocol to guide fellow paramedics about what one needs them to do.
- 3. A further reason to have a protocol is that if one is working as a team say in the care of diabetics, if everybody involved in the care the specialist, the GP, the nurse and the health educator have all been involved in the

drawing up of the protocol they will all feel committed to it and they will all know what other members of the team are doing.

- 4. Having drawn up a protocol, one can then assess what skills are needed by everybody involved in the care. If needed, further education can be given if anybody involved lacks the necessary skills.
- 5. If one has a protocol, one has defined exactly what one is aiming to do and if good records are kept after a few months one can go back and assess whether one has kept to one's protocol and what standard of care has been given to the patients. This is practice audit.

## Types of Protocol

In general, in family medicine, there are two types of protocol:

- 1. **Operational protocols:** These govern the way in which patients are able to contact the doctor, the way in which medical care is delivered and the management and finance of the practice.
- Clinical protocols cover the principles for management of specific diseases. As an example of a clinical protocol I would like to offer our protocol for the management of hyperlipidaemia. It is based on an outline protocol produced by the British Heart Foundation.
- 1 Management of elevated blood lipids will only be carried out in the context of an integrated strategy for CHD risk factor management. Thus in every patient an enquiry will be made about smoking, alcohol intake and exercise. Family history will be recorded and blood pressure and weight will be measured. Action will be taken concerning these factors at the same time as managing lipid levels.
- 2 Every patient on the list will be offered a general health check every 3 years. As part of this test a lipid measurement will be carried out. In Bedford we do not have the facility to measure lipid fractions so total cholesterol measurements are used. We accept that triglycerides are rarely independent risk factors for CHD.
- 3 Patients with cholesterol less than 5.2 mmol/litre (40% of the population in the UK) will be reassured, but encouraged to maintain an ideal body weight. Any other CHD risk factors will be dealt with i.e.smoking, high alcohol intake, poor diet.

- 4 Where patients have total cholesterol 5.2-6.5 mmol/litre they are referred to the practice dietician for a low total and saturated fat diet with an increased percentage of unsaturated fat. They are encouraged to attain an ideal body weight and any other risk factors are dealt with.
- 5 Where patients have a total cholesterol of 6.5-7.8 mmol/litre this requires more specific and vigorous lipid lowering dietary advice. The dietician will follow these patients up every 2 months. Where other risk factors are present and where lipid levels do not fall with diet and loss of weight, lipid lowering drugs are sometimes considered. With serum cholesterol over 6.5 mmol/litre the patients' families are screened.

6 Lipid levels of more than 7.8 mmol/litre requires special attention particularly in males, postmenopausal women and those with other risk factors. Such problems as diabetes, hypothyroidism and alcohol abuse are excluded. Failure of dietary advice to lower lipid levels after 3 months indicates drug treatment.

- 7 At all levels of serum cholesterol dietary advice and weight reduction is always the first treatment. In many cases it will be all that is required.
- 8 Drug treatment if necessary is started with a resin. If triglycerides are also high a fibrate with or without a resin is used. The statins are very effective but their long term safety has not been proven so we use them as third line drugs.
- 9 In all cases patients under dietary or other treatments will be given booklets and the nature of their problem will be repeatedly discussed with them.
- 10 The aim is to reduce the cholesterol levels of patients under 55 to below 6.5 mmol/litre and those over 55 to below 7.00 mmol/litre. Ideally patient's cholesterol should be reduced to below 5.5 mmol/litre but this is not always possible.
- 11 Every year the list of patients whose cholesterol was over 6.5 mmol/litre and who are under treatment will be considered. Any patients who have not been seen and reviewed within the year are recalled.
- 12 The doctor will work closely with the dietician and the health screening nurse and have regular meetings with these colleagues to ensure that advice given to patients does not differ according to whom they see.
- 13 When lipid levels have been controlled patients will be reviewed twice a year.
- 14 When lipid levels cannot be controlled, or when there is evidence of accelerated arteriosclerosis the patients are referred to a specialist colleague.
- 15 Every 2 years the patients with hyperlipidaemia will be audited and the following will be measured
  - a The number not reviewed within 1 year
  - b The average level of cholesterol at which dietary advice is given
  - c The average level of cholesterol at which drug treatment is started
  - d How many patients are in which drugs
  - e The average fall in cholesterol on dietary treatment
  - f The average fall in cholesterol on drug treatment
  - g How many patients have not had other CHD risk factors addressed

A plan will then be made for the next 2 years.