Saturday 25 November 2000

BMJ

Treating dyslipidaemia in primary care

The gap between policy and reality is large in the UK

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Standards three and four of the NHS's *National Service Framework for Coronary Heart Disease* require primary care teams to identify and modify risk factors in patients who have a greater than 30% risk of developing heart disease over 10 years; they must also offer advice and treatment to all patients with established coronary artery disease to help them reduce their risks.[1] Yet the study published by Primatesta and Poulter this week (p 1322) found that less than one third of patients in England who have a history of coronary heart disease or stroke receive lipid lowering treatment, and that recently recommended targets for cholesterol concentrations were reached by only about 1 in 10 of those who were eligible for treatment.[2] Primatesta and Poulter's findings are in accordance with those of other studies.[3–5]

Why are so few patients receiving lipid lowering treatment? The consensus that cholesterol is an important reversible risk factor for coronary heart disease was reached only comparatively recently as a result of studies published in 1994 and 1995.[6,7] In the United Kingdom, extra resources to fund this additional treatment have not been provided.

At the recent meeting of the European Society of Cardiology (Amsterdam, August 2000) unpublished data were presented from the reassessing European attitudes about cardiovascular treatment (REACT) study. These data suggest that doctors overestimate their patients' knowledge about cholesterol as a risk factor for coronary heart disease. The inverse care law suggests that those who are at high risk do not seek treatment, and those at low risk do.[8] The NHS needs to develop strategies to encourage high risk patients to attend for cholesterol screening.

Cost considerations in the NHS have limited the use of statins to individuals who are at highest risk; thus it has become accepted policy to test cholesterol concentrations only when additional risk factors are present. A patient's cholesterol concentration is therefore not recorded independently as a risk factor in the same way that smoking, age, and blood pressure are. Concerns over the safety of lipid lowering drugs may also have contributed to the apparent treatment inertia and the tendency to treat with suboptimal doses.[9] The manufacturers' data sheets for all statins available in the United Kingdom still state that liver function and creatine kinase concentrations should be checked regularly.

The failure to achieve target levels of cholesterol in patients with established cardiovascular disease who were being treated with lipid lowering drugs is unlikely to be related to effectiveness or tolerability: clinical trials of the statins found that discontinuation rates were similar to those for placebo. Although the joint British recommendations on the prevention of coronary heart disease endorse the use of statins of the type and at the dosage described in clinical trials, it seems that this policy has not been adopted in practice.[10] General practitioners tend to start patients on the lowest recommended dose of the statin of their choice and then titrate the dose according to changes in low density lipoprotein (LDL) concentrations. The process may make it difficult for patients to comply with the regimen, and LDL concentrations fail to fall. For lipid lowering drugs to be effective, patients must comply with treatment, but discontinuation rates of the order of 50% have been observed after five years of treatment.[11]

A recent study of treatment with 10 mg atorvastatin found that 355 patients of 379 completing the study (94%) reached a target concentration of 3.4 mmol/l, and 77% reached a target concentration of 3.0 mmol/l, without titration of the dose, at five weeks.[12] The clinical guidelines available to clinicians tend to place a stronger emphasis on who to treat rather than on how to treat. A simple table showing the specific dose of a statin required to achieve a 30% reduction in LDL concentration would be a useful addition to current guidelines. Using the appropriate dose of a statin at the beginning of treatment—which for some statins will not be the lowest dose—will help patients reach their target LDL concentrations. Developing and implementing integrated care pathways between primary and secondary providers might enable healthcare professionals to help their patients modify their risk factors and prescribe more effectively.

The test for non-fasting concentrations of high density lipoprotein (HDL) cholesterol is now automated, and the cost considerations that used to limit accessibility no longer apply. However, not all laboratories have the same policy and if an HDL concentration is not specifically requested it may not be done; this is frustrating to primary care clinicians. The ratio of total cholesterol to HDL cholesterol allows the risk of coronary heart disease to be calculated for individuals who are being considered for primary prevention. If the initial cholesterol measurement is abnormal most clinicians will follow it up with a request for a fasting specimen to obtain a full lipid profile including measurements of HDL, LDL, and triglycerides. Most primary care physicians do not perform three cholesterol measurements (one random measurement followed by two fasting measurements)

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when initially assessing patients as suggested in the joint recommendations.[10]

The importance of considering a secondary cause of dyslipidaemia should not be underestimated. Most patients who are admitted to hospital with a myocardial infarction have their lipid concentrations checked within 24 hours of the onset of symptoms. If these measurements are abnormal then treatment with a statin is started. When these patients are later seen in primary care it is important not only that they continue taking their medication and that their cholesterol is monitored but that a full assessment of their dyslipidaemia is made to exclude a secondary cause, such as hypothyroidism.

Despite strong evidence of the benefit of lowering lipid concentrations and using statins, a reactive approach has not worked. A proactive approach designed to seek out adults with, or at high risk of developing, cardiovascular disease that is similar to that used for cervical screening or breast screening should be adopted. Such a programme will have to be appropriately funded and developed if the targets set in the national service framework are to be met.

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DM has chaired some educational meetings that were sponsored by pharmaceutical companies and for which he received an honorarium. These companies included Bristol-Myers Squibb; Sanofi; Merck, Sharp and Dohme; SmithKline Beecham; GlaxoWellcome; Hoechst Marion Roussel; and Pfizer.

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Accountability for reasonableness

Establishing a fair process for priority setting is easier than agreeing on principles

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All health systems struggle with the issue of meeting population health needs fairly under resource constraints. Decisions about the implementation of new technologies provide a useful window into the larger issue, and a paper in this week's journal provides a valuable insight into the elements of decision making that decision makers themselves think important in trying to reach fair decisions on applying new technologies in health care.[1]

In mixed systems, like that in the United States, decisions whether to fund new technologies—drugs, devices, procedures—are made both by public agencies, such as the Health Care Financing Administration or the Veterans Administration, and by private indemnity insurers and managed care organisations. In the universal coverage systems of most developed countries such decisions are made by public agencies or authorities. Distrust has grown in all these settings.[2,3] Clinicians, patients, and the public—propelled by the media, the internet, and direct to consumer advertising—often believe these decisions are guided solely by the "bottom line," not patient welfare. The moral legitimacy of limits and priorities thus involves not just who has moral authority to set them, but how they are set.

Some countries with universal coverage systems initially tried to address this problem of legitimacy by setting up national commissions to articulate principles that should govern the setting of priorities. Holm has argued that these principles proved too general and too unclear in practice.[4] More generally, we probably lack consensus on principles capable of resolving disputes about rationing.[5] A second wave of efforts to address priority setting has thus focused on developing fair, publicly acceptable processes for making these decisions. In the United States an active consumer movement has also focused on a patients' bill of rights as a vehicle for fair process. In the United Kingdom, awareness of the need for clear process is reflected in the establishment of the National Institute for Clinical Excellence (NICE) to handle some aspects of rationing.[6,7]

In pluralist societies we are likely to find reasonable disagreement about principles that should govern priority setting. For example, some will want to give more priority to the worst off, some less; some will be willing to aggregate benefits in ways that others are not. In the absence of consensus on principles, a fair process allows us to agree on what is legitimate and fair. Key elements of fair process will involve transparency about the grounds for decisions; appeals to rationales that all can accept as relevant to meeting health needs fairly; and procedures for revising decisions in light of challenges to them.[8] Together these elements assure "accountability for reasonableness."[9]

Fair procedures must also be empirically feasible. They must involve practices that can be sustained and that connect well with the goals of various stakeholders in the many institutional settings where these decisions are made. The value of the study by Singer et al in this issue is that it points to key elements of actual decision