VASCULAR DISEASE CONTROL PROGRAMME

May 2006

The following paper outlines the presentation Sir Muir Gray gave to the Diabetes, Heart Disease and Stroke Prevention Project Advisory Group on 9th May 2006, informing the group of the course of action recommended to the Vascular Board within the Department of Health.

A Vascular Disease Control Programme

There is a need for a co-ordinated Vascular Disease Control Programme covering heart disease, stroke, renal disease, Type 2 diabetes, and peripheral vascular disease. The term "control programme" need not be used for broader communication but has been found useful in its WHO meaning in the co-ordinating activities of what has been called in the past "primary prevention", "secondary prevention", and "tertiary prevention", phases of disease control roughly equivalent to disease prevention, screening and early detection, and treatment. This paper focuses on the first two of these activities.

There is a need to ensure that public health measures focused on primary prevention are very well co-ordinated with risk factor detection and management. Public health measures, for example the banning of smoking in public places, alerts members of the public to the risks of vascular disease and makes them more likely to respond to invitations for risk management. In addition the engagement of large numbers of people in risk management can increase social pressure for public health measures to be introduced and for their acceptability if they are introduced. Thus relationship between the two can be represented either by a Venn diagram (Figure 1) or a spectrum (Figure 2).

Figure 1

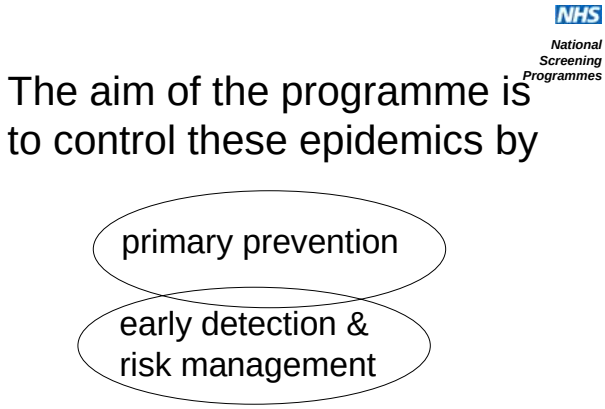
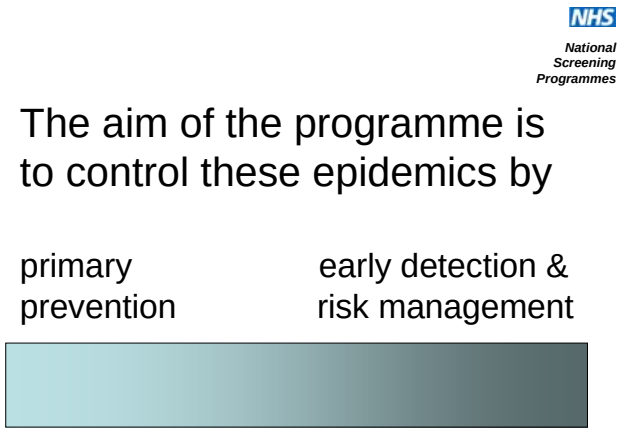


Figure 2



It is essential not only to integrate the work of primary prevention with risk management but also to minimise health inequalities. Without cross-cutting work taking into account the government's inequalities initiative, it would be possible to increase health inequalities by an incorrectly developed or managed programme.

Also, it is essential to develop an integrated risk management programme, integrating the four types of risk management strategy currently underway or being planned. These four strategies are:

- the self-assessment risk management strategy;
- the record-based risk management strategy;
- the population-based risk management strategy;
- sporadic risk assessment and management initiatives.

The self-assessment risk management strategy

The Adult Health Check, to be managed by Health Direct, will offer people the opportunity of self-assessment. Work under way to develop a test and implement "patient data entry", namely the opportunity for people to enter their own data when attending the health centre, complements Health Checks. The Adult Health Check could have a social class bias if middle-class people tend to be the ones who complete a health questionnaire on-line, or have their cholesterol checked by a mobile unit and enter the results into the data entry system 'My Healthspace' for the health professional to evaluate.

It may be the case that people from socially deprived areas or those who do not speak English have problems accessing or understanding the system. Furthermore, there may well be a gender

bias. It is important to remember that most vascular disease is at present very much more common in men than in women, yet men have been shown in most studies to be less responsive to any health improvement or risk management strategy requiring the individual to be committed and organised well enough to participate.

The record-based risk management strategy

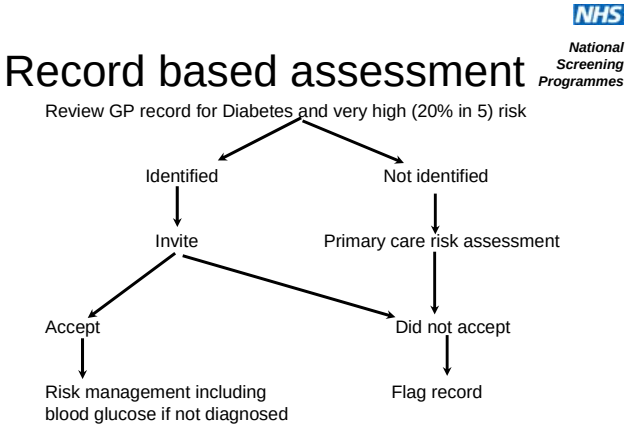
The identification of people at highest risk of cardiac disease, including those with Type 2 diabetes, from data in the general practice record has been piloted in a number of practices in one PCT. All available risk factor information from the practice database is downloaded: age, sex, diabetic status, smoking status, the last three BPs within the previous 3 years and the last 3 cholesterol levels within the previous 3 years. From this, the computer tool calculates vascular risk on all people using this available risk factor data.

Logically, the people most likely to benefit from assessment and possible treatment are those at highest vascular risk, so these are the people that should be targeted first. A rational vascular prevention strategy would therefore rank people in descending order of vascular risk and systematically assess them in this order by inviting people for assessment systematically in descending order of risk. This system works well if the risk factor data is present on the general practice computer system but not as well if risk factor data is missing and a default "best guess" is utilised.

Those people who have risk factor data present are represented as "identified", and individuals who have data missing have a vascular risk that is "not identified" It is important to note that the latter group who have not been identified as being at very high risk could still be at very high risk, but simply do not have the relevant data recorded on the computer to allow health professionals to establish this. Thus they require a separate approach (under the population-based risk management strategy described in the next section).

This computer generated approach, which we have called "record-based risk management", should be the first step in the risk management strategy and the consequence of this approach is set out in Figure 3.

Figure 3



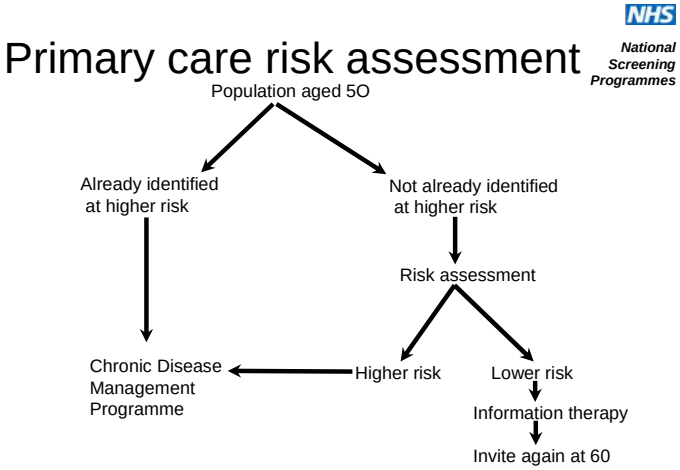
The population-based risk management strategy

Having identified individuals who are already known to be at very high risk, the next step is to offer risk assessment to those who have not been so identified. The approach to this has been piloted in the Diabetes, Heart Disease and Stroke Prevention Pilot Project and this project has demonstrated that it is possible to carry out this type of operation in the most deprived inner city general practices. Individuals of a specified age are invited into the general practice to have unidentified risk factors e.g. blood pressure, lipids, blood pressure, blood glucose and Body Mass Index or waist circumference measured and a vascular risk assessment calculated.

Certain criteria still needs to be confirmed such as the age at which this process starts e.g. age 40 or 50 years and the interval those of vascular risk less than 20% should be re-assessed e.g. five or ten years. Ethnicity issues should be addressed. Familial Hypercholesterolaemia could be identified by a cascade programme.

The flow of people through this programme can be demonstrated. For example, assessing the characteristics of those people who attend after being targeted via a letter or birthday card or, secondly, to describe the classification of people into higher and lower risk among those who accept an invite or are identified opportunistically in the following three years.

Figure 4



Sporadic risk assessment initiatives

Risk assessment activities, sometimes supplemented by risk management, are being undertaken by:

- pharmacy chains;
- supermarket chains;
- food companies;
- occupational health departments;
- small business offering risk assessment.

These initiatives could make a major contribution but it is of central importance to ensure that anyone having their risk assessed has the results recorded using, in the short term, 'My Healthspace' and, in the longer term, the personal care record.

Timescale

The following work should be carried out by the end of September 2006 to allow PCTs to receive a briefing before the end of the calendar year. It is not known if this timescale can influence QOF payments in 2007/8. The proposed policy may need to be tested during the winter 2006/7, with implementation beginning on 1 April 2008.

Policy work

It is essential to have a policy that integrates:

- primary prevention and risk management;
- all types of risk assessment and management;
- risk management and measures to minimise inequalities.

Risk factors

By the end of September 2006 it is essential to have developed clear protocols for the measurement of:

- lipids;
- glucose;
- blood pressure;
- BMI or girth.

Furthermore it would be important to determine not only which tests are the best risk assessment tests but also which are the best test from the point of view not only of assessment but also of:

- citizen time, minimising the number of visits required;
- clinician time, minimising the number of visits required;
- short-term cost;
- long-term cost;
- reliability, including the possibility of quality assurance.

For example, in minimising the number of visits which will be of benefit to both citizens and healthcare professionals, it may be more appropriate in lower risk individuals to carry out 'near-patient' (capillary) testing for cholesterol and glucose, rather than to draw a venous blood sample. With 'near-patient' testing the results are available immediately and thus the person can be given their vascular risk assessment at their first visit. With venous sampling the individual has to return to the general practice in a couple of weeks to gain test results of this and their actual risk assessment.

This means that a person with a vascular risk under 20% has attended for two visits instead of just one. It may be appropriate to pilot test sensors which allow people to self-test blood glucose which would allow easy fasting measurement of blood glucose. The choice of blood sample —

capillary or venous — will in turn influence the pattern of delivery and the management of services.

Risk calculators

It may be appropriate to approve one or more than one risk calculator. To minimise disruption to clinicians it would be appropriate to ensure that any proposed change in the risk engine is incorporated into the information technology system already in use. This would have very clear benefits over and above the existing system because of the cost of disruption.

Risk calculators should be incorporated along with agreed guidelines and actionable support along with measures to audit preferred methods of risk assessment and outcomes.

Choice of tests

Whatever the type of details of the tests chosen, it will be essential to develop:

- public information;
- professional training;
- organisational models and their economic consequences;
- negotiations for medicines to ensure best value;
- information systems which standardise risk assessment and management;
- a plan for the modification of what is happening at the moment and, where appropriate, the introduction of new techniques and resources.
- Research capacity to develop population evidence.

Timescale

It is envisaged that it will take five years for the whole programme to be introduced.

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