Cholesterol and cardiovascular disease in primary healthcare

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Cardiovascular disease is the primary cause of death in Ireland and the UK. There is a relative lack of research data in Ireland whilst the UK has provided data within the recommendations presented in the NICE Clinical Guidelines 67-Lipid modification.

For the purpose of this article the evidence based research from the NICE Report is used from England. Reference is also made to one of the most recent Irish cardiovascular studies – Heartwatch. Heartwatch was initiated in 2002. The first group of patients were seen in 2003 and the study completed in 2006.

Heartwatch, a secondary prevention programme in primary healthcare was based on the second European Joint Task Force Recommendations for Secondary Prevention of Cardiovascular Disease.

The aim of the study was to examine the effect of the first two years of the Heartwatch programme on cardiovascular risk factors and treatment.

Risk factors

The study concluded that there was significant improvement in the main risk factors and treatments of CHD. However, it stated that more effective interventions were required to reduce body mass index (BMI), waist circumference, and physical activity in this particular group. (European Journal of CVD.)

Risk factor modifications have been unequivocally shown to reduce mortality and morbidity, especially in people with either recognised or unrecognised CHD. (Leahy, J, 2006)

It was also suggested that the programme be used as a template for future management of chronic illnesses in PHC.

Apart from age and gender there are three main risk factors:

• Smoking
• Hypertension
• Raised lipids

These factors make a major contribution to CVD, especially in combination. Indeed they account for 80% of all premature CHD. (Emerson, 2003)

The high risk population can be identified for future CVD events by using these three main factors.

Social factors

CVD is strongly associated with low income groups and social deprivation. Family history of premature CHD identifies an important group that contains those with a genetic predisposition.

The practice nurse plays an important role when it comes to modifiable risk factors such as cholesterol. The common aim within the multidisciplinary team is towards the reduction and modification of possible risk factors.
The primary care setting is an ideal arena to address and identify those at risk.

The aim of practice nurses, along with their colleagues, is to work towards the modification of lipids and other modifiable factors (lifestyle factors) in the at risk groups and those with established CHD.

**Treatment**

Treatment is aimed at reducing overall risks in collaboration with the patient.

Both the knowledge and wealth of experience between the multidisciplinary team members allows for a multifactorial approach highlighting all risk factors yields most benefit.

The NICE guidelines offer best practice on the care of adults at risk of developing CHD and those with established CHD. It is important to remember that whilst it is always a partnership in care, the client is also encouraged to take responsibility for their health. Ideally, the treatment and care is tailored to the individual using a holistic approach taking into account their needs and preferences.

The role of the practice nurse is pivotal to the success of implementing key priorities of care within the team.

Within the scope of implementation the practice nurse may take on agreed responsibility for:
- Identification of those who are likely to be high risk
- Use of computerised records to enter valuable data and chronic illnesses
- Coding of medical records
- Use of risk equations
- Patient information, health promotion, benefits of treatment and side effects of treatment
- Recording baseline blood pressure, weight, pulse BMI, lifestyle habits such as smoking and alcohol intake, exercise habits
- Serum analysis: fasting glucose, liver function test, renal function test, full cholesterol profile including total cholesterol, HDL, LDL and triglycerides. If the lipids are abnormal a TFT is carried out.

It is important to remember that the team also need to monitor and manage other chronic diseases whilst considering optimising the modification of the CHD risks.

The GP may prescribe a statin pending on the CHD risk and the lipid profile results.

Statins are prescribed with the aim of reducing the cholesterol to less than 4mmol/l and an LDL of less than 2mmol/l.

The practice nurse is advised that, when creating a register of risk groups opportunistic assessment should not be used as the main strategy.

It is important to be mindful that those already taking medication for hypertension and raised lipids are at risk of being underestimated for cardiovascular risk.

Also those with a BMI greater than 40 also affects cardiovascular risk.

The communication between the patient and the health care professional, usually the practice nurse, is paramount in order to promote patient participation in reducing CVD risk. Exploration of patient beliefs, existing knowledge, and general understanding of their condition is important in order to correct any misinformation.

Assessment of their readiness to make lifestyle changes regarding smoking, alcohol consumption, diet and exercise should always be confirmed.

A review of the patient’s liver function prior to statin treatment and again 3 months following initiation of treatment is advised.

It seems that an enormous amount of work is needed to invest in good cardiac health for patient populations at risk. Who better to carry out the work than the practice nurse?

The work profile of the practice nurse continues to increase as time goes on. The payoff is a positive one when we look at results from the Heartwatch programme.

**Croi**

Ireland is advancing to the forefront of cardiac health care. The Croi programme which was set up in the West of Ireland in 2009, is Ireland’s first purpose built centre dedicated to cardiovascular disease prevention and rehabilitation.

Croi backs initiatives across all areas of cardiac care, including in-hospital patient care, interventional cardiology, heart failure and other sub-specialities, cardiac surgery, patient care in the community, family support, disease prevention, cardiovascular research and community and professional education. Croi’s current focus is very much community based: it supports innovative approaches to education, heart health promotion, lifestyle and behaviour changes.

Practices nurses are in a prime position to continue the goral of Heartwatch in striving to improve our heart health.

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