

SERVICE FRAMEWORK FOR CARDIOVASCULAR HEALTH AND WELL BEING

6.2 HYPERLIPIDAEMIA

Smoking, blood pressure and cholesterol account for 80% of premature coronary disease (Emberson et al. 2003²⁹). CVD is rare in the absence of these factors. Blood cholesterol is closely related to risk of CVD and it is possible to reduce this risk through drugs, physical activity and dietary change. Trials have shown that statins are highly cost-effective drugs for the secondary prevention of CVD and cost-effective for primary prevention for those with a 10 year risk above 20% (RCGP 2007³⁰).

A particularly vulnerable group to CVD are those with familial hypercholesterolaemia, a genetically linked condition which causes some people to have very high blood cholesterol levels. While the numbers in the population are small, patients with this condition have greatly increased risk, are often undiagnosed and effective management and treatment can help prevent or delay the onset of symptoms. It is preferable to diagnose people with this condition as early as possible, ideally in childhood.

²⁹ Emberson, JR, Whincup, PH, Morris, RW, Walker, M. Re-assessing the contribution of serum total cholesterol, blood pressure and cigarette smoking to the aetiology of coronary heart disease: impact of regression dilution bias. *European Heart Journal* 2003; 24(21):1903-1911.

³⁰ RCGP (2007) Cardiovascular risk assessment: the modification of blood lipids for the primary and secondary prevention of cardiovascular disease (Full guideline, consultation draft) National Collaborating Centre for Primary Care: London.

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Overarching standard 12:

All people with genetically linked high cholesterol (familial hypercholesterolaemia) should be identified and treated and their names entered on a regional register so that other family members can be identified in order that measures can be introduced to prevent the development of cardiovascular disease.

Rationale:

Familial hypercholesterolaemia (FH) is a genetically linked condition (autosomal dominant) with a prevalence of 1/500 in the population, which results in premature vascular disease. Diagnosis should be made using Simon Broome criteria. The majority of patients are probably undiagnosed and the identification and treatment of patients with FH with lipid lowering therapy reduces coronary artery disease mortality and morbidity.

Evidence:

National Institute for Health and Clinical Excellence (NICE) Identification and management of familial hypercholesterolaemia (2008)

<http://www.nice.org.uk/Guidance/CG71>

European Guidelines on Cardiovascular disease prevention in clinical practice: Executive summary. Atherosclerosis: 2007; 194: 1 – 45

<http://linkinghub.elsevier.com/retrieve/pii/S002191500700528X>

Responsibility for delivery / implementation

Health and Social Care Board
Public Health Agency
HSC Trusts

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Quality Dimension

Safe

Lipid lowering therapy is safe with a low incidence of side effects.

Timely

All patients with definite or probable FH should be referred to a specialist lipid clinic in a timely manner. Early screening of first and second degree relatives should take place (cascade testing).

Effective

All treatment will be provided in line with evidence based practices. Lifestyle and lipid lowering treatments should be implemented to achieve in adults: a reduction in LDL cholesterol concentration of greater than 50% from baseline to reduce cardiovascular risk.

Efficient

The screening of relatives is an efficient and cost effective method of detecting affected family members.

Equitable

All patients should have access to specialist lipid clinic services regardless of where they live.

Patient Centred

All FH patients are provided with information on their condition, genetic implications, lifestyle advice and a primary / secondary prevention plan

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Performance Indicator	Data source	Anticipated Performance Level	Date to be achieved by
Percentage of the putative N Ireland FH population identified	There is a requirement for a regional benchmark survey to collate numbers of known FH patients. This survey should be linked to the establishment of a regional FH register	Establish regional register	March 2011
		Establish baseline	March 2012
		Performance level to be determined once baseline established	
Percentage of adult FH patients achieving a reduction in LDL cholesterol concentration of greater than 50%		Establish baseline	March 2011
		Performance level to be determined once baseline established	