East Lancashire Health Economy Medicines Management Board
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Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease

For individuals who are already stable on a low- or middle-intensity statin such as simvastatin 40mg discuss the likely benefits and potential risks of changing to a high-intensity statin when they have a routine medication review and agree with the person whether a change is needed. Document the discussion using READ code 8CP6.

Primary prevention

Use the QRISK2 risk assessment tool to assess CVD risk for the primary prevention of CVD in people up to and including the age of 84 years old.

Before starting lipid modification therapy for the primary prevention of CVD, take at least 1 blood sample to measure a full lipid profile.
A fasting sample is not needed.
Measure baseline LFTs before starting a statin.

Arrange for specialist assessment of people with a total cholesterol concentration of more than 9.0 mmol/litre or a non-HDL cholesterol concentration of more than 7.5 mmol/litre.

Refer for urgent specialist review if a person has a triglyceride concentration of more than 20 mmol/litre that is not a result of excess alcohol or poor glycaemic control.

In people with a triglyceride concentration between 10 and 20 mmol/litre: repeat the triglyceride measurement with a fasting test (after an interval of 5 days, but within 2 weeks) and review for potential secondary causes of hyperlipidaemia. Seek specialist advice if the triglyceride concentration remains above 10 mmol/litre.

In people with a triglyceride concentration between 4.5 and 9.9 mmol/litre: be aware that the CVD risk may be underestimated seek specialist advice if non-HDL cholesterol concentration is more than 7.5 mmol/litre.

Offer atorvastatin 20 mg (high intensity statin) for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD estimated using the QRISK2 assessment tool.

Measure LFT's 3 months after starting treatment and again at 12 months, but not again unless clinically indicated

Measure total cholesterol, HDL cholesterol and non-HDL cholesterol in all people who have been started on high-intensity statin treatment at 3 months of treatment.

Aim for a greater than 40% reduction in non-HDL cholesterol

If a greater than 40% reduction in non-HDL cholesterol is not achieved: discuss adherence and timing of dose, optimise adherence to diet and lifestyle measures, consider increasing the dose if started on less than atorvastatin 80 mg and the person is judged to be at higher CVD risk .

Secondary prevention

Do not delay statin treatment in secondary prevention to manage modifiable risk factors.

Measure baseline LFT's before starting a statin.

Start statin treatment in people with CVD with **atorvastatin 80 mg.** Use a lower dose of atorvastatin if any of the following apply: *potential drug interactions, high risk of adverse effects, patient preference.*

Measure LFT's 3 months after starting treatment and at 12 months, but not again unless clinically indicated.

Measure lipid profile at 3 months of treatment.

If a greater than 40% reduction in non-HDL cholesterol is not achieved: discuss adherence and timing of dose, optimise adherence to diet and lifestyle measures,

If a person is not able to tolerate a high-intensity statin aim to treat with the maximum tolerated dose. Explain to the individual that any statin at any dose reduces CVD risk.

Do not offer coenzyme Q10 or vitamin D to increase adherence to statin treatment.
Omega-3 fatty acid compounds, Fibrates, Nicotinic acid or Bile acid sequestrants should not be offered for the prevention of CVD.

Ezetimibe should only be considered in patients with primary hypercholesterolaemia in line with NICE TAG 132.

	Reduction in low-density lipoprotein cholesterol			
Dose mg/day	10	20	40	80
Simvastatin	27%	32%	37%	42%
Atorvastatin	37%	43%	49%	55%

20%–30%: low intensity. 31%–40%: medium intensity. Above 40%: high intensity.

Reference- NICE CG 181 http://www.nice.org.uk/guidance/cg181 published July14.