

Guidelines for the Management of Hyperlipidaemia

PRIMARY PREVENTION OF ATHEROSCLEROTIC VASCULAR DISEASE

High risk patients (predicted cardiovascular event rate $\geq 20\%$ over 10 years, but without established atherosclerotic arterial disease) should be offered treatment with a statin

Offer treatment to the following high risk groups without additional risk assessment:

- Patients who have chronic kidney disease (CKD 3-5)
- Patients who have diabetes ≥ 40 years of age (or patients who have diabetes <40 years of age who have had diabetes for >20 yrs or have additional major risk factors – especially microalbuminuria)

For all other patients without established atherosclerotic arterial disease calculate individual risk using [ASSIGN](#) or [QRISK3](#) risk prediction models.

Random non-fasting test for total cholesterol, HDL and triglycerides and also LFTs TSH and HbA1c

If total cholesterol >7.5 mmol/L or LDL-C ≥ 5.0 mmol/L and CVD in 1st degree relative aged <60 , (or total cholesterol >9.0 mmol/L even without family history) refer to lipid clinic for genetic screening for familial hypercholesterolaemia

Consider and manage secondary causes of hyperlipidaemia, such as excess alcohol consumption, uncontrolled diabetes mellitus, obesity, hypothyroidism, liver disease, and nephrotic syndrome

For patients with a 10 year cardiovascular event risk $\geq 20\%$ offer Atorvastatin 20mg daily as primary prevention

- Consider using a lower dose of statin in patients who experience side effects of treatment. Consider changing to an alternative statin (e.g. Rosuvastatin) if side effects persist. Any dose of statin is preferable to alternative drug classes.
- There is no formal target for cholesterol in routine primary prevention. The aim is to reduce cholesterol concentrations and failure to do so may be a marker of poor adherence. An annual review of lifestyle, risk factors and medication should be undertaken. It may be reasonable to increase Atorvastatin to 40mg or 80mg in high-risk patients.
- Consider switching patients established on lower intensity statins such as simvastatin to atorvastatin 20mg unless there is a history of intolerance, or patient preference.
- See BNF/SPC for cautions, contra-indications and clinically important drug interactions (e.g. clarithromycin). Re-check Lipids and LFTs after 3 months then annually. Check CK if the patient complains of myalgia.
- Treatment of frail or very elderly people with statins should be guided by individual circumstances and co-morbidities and need not follow guideline recommendations.

SECONDARY PREVENTION OF ATHEROSCLEROTIC VASCULAR DISEASE

Patients with established atherosclerotic arterial disease are at high risk and should be offered treatment with a statin regardless of total blood cholesterol concentration

Includes patients with previous MI/previous CABG/previous PCI/angina/proven coronary artery disease (invasive or CT angiography)/ischaemic stroke or TIA/peripheral arterial disease

Random non-fasting test for total cholesterol, HDL and triglycerides and also LFTs TSH and HbA1c

If total cholesterol >7.5 mmol/L or LDL-C ≥ 5.0 mmol/L and CVD in 1st degree relative aged <60 , (or total cholesterol >9.0 mmol/L even without family history) refer to lipid clinic for genetic screening for familial hypercholesterolaemia

Consider and manage secondary causes of hyperlipidaemia, such as excess alcohol consumption, uncontrolled diabetes mellitus, obesity, hypothyroidism, liver disease, and nephrotic syndrome

For patients with atherosclerotic disease offer atorvastatin 40-80mg daily as secondary prevention (80mg for high risk ACS/stroke)

- All patients should be advised on lifestyle issues including diet, weight, exercise, smoking and alcohol, as a cornerstone of risk reduction.
- It is recommended to switch patients established on lower intensity statins such as simvastatin to atorvastatin unless there is a history of intolerance.
- Consider a reduced dose, or an alternative statin (e.g. Rosuvastatin) if there are significant side effects.
- For secondary prevention the target for treatment is an LDL cholesterol of 1.8 mmol/l or less, or a 40% reduction from baseline (whichever is lower).
- See BNF/SPC for cautions, contra-indications and clinically important drug interactions (e.g. clarithromycin). Re-check Lipids and LFTs after 3 months then annually. Check CK if the patient complains of myalgia.
- Treatment of frail or very elderly people with statins should be guided by individual circumstances and co-morbidities and need not follow guideline.

Cholesterol Goals Achieved

Annual review to ensure continued concordance

Cholesterol goals not achieved. Discuss adherence to treatment. Only if goals are not met on the maximal tolerated dose of statin should the addition of ezetimibe 10mg daily be considered.

Other classes of lipid-lowering agents are not recommended without specialist advice (refer to Lipid Clinic if other drug options to be considered)