NHS
South London
Cardiovascular and Stroke Network

Lipid Management for the Secondary Prevention of Cardiovascular Disease

This guidance represents the consensus view of the South London Cardiac and Stroke Network Cardiac Prescribing Forum. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Secondary prevention is appropriate for patients with known cardiovascular (CV) disease, or other atherosclerotic vascular disease (such as ischaemic stroke or peripheral vascular disease) and all patient with diabetes (>40 years old)

Lifestyle Advice and Blood Pressure Control

The following lifestyle issues should be addressed alongside consideration of statin therapy:

- Smoking cessation
- Diet (reduce saturated fats, include Mediterranean diet and oily fish twice a week, aim for body mass index (BMI) of 19 – 25kg/m^2, or a minimum of a 10% reduction in body weight)
- Alcohol moderation to within safe limits (up to 21 units per week for men and 14 units per week for women)
- Exercise (aim for a total of 30 minutes of moderate intensity physical activity (eg, brisk walking) at least 5x a week)

Blood pressure control - Treat if BP consistently over 140/90mmHg to achieve a BP of less than 140/90mmHg; more aggressive targets apply in patients with chronic kidney disease and diabetes

Initiating Therapy

Initiate a statin in all patients with a diagnosis of cardiovascular disease or other atherosclerotic vascular disease (such as ischaemic stroke or peripheral vascular disease) or diabetes (>40 years old) unless contraindicated.

In diabetics, initiation of a statin may be considered at an earlier age for individuals where there are multiple cardiovascular risk factors – see FAQ for more information.

First line choice: Simvastatin at a dose of 40mg* with the evening meal.
Where simvastatin 40mg is contraindicated or not tolerated or there are drug interactions which limit the dose*, initiate a lower dose of simvastatin or consider an alternative agent, such as atorvastatin 20mg daily initially.

**Max dose 10mg daily with concomitant lipid-lowering dose of niacin*
**Max dose 20mg daily with concomitant amlodipine, diltiazem, amiodarone or verapamil*

Next Steps

- Repeat fasting lipid levels within three months of initiation
- Reinforce lifestyle issues and check adherence to medication
- Consider switching to atorvastatin 40mg daily, increasing to 80mg daily in the following patients:
  - **All CVD patients not achieving an average total cholesterol ≤ 5mmol/L and LDL ≤ 3mmol/L**
  - **All diabetic patients over 40 years not achieving an average total cholesterol ≤ 4mmol/L or LDL cholesterol ≤ 2mmol/L on simvastatin 40mg daily**

  Note: Any decision to increase the intensity of statin therapy should take into account informed preference, co-morbidities, multiple drug therapy and the benefits and risks of treatment. Also, cholesterol levels can vary by as much as 10% across the 24 hour period and this should be taken into account when making prescribing decisions
- In line with NICE TA 132, ezetimibe 10mg daily can be considered as an adjunct in patients failing to achieve cholesterol treatment targets despite maximal statin doses, or where higher statin doses are not tolerated, although the efficacy of ezetimibe in protecting against CV events and its long-term safety is not yet established
- If total cholesterol remains raised after intensifying therapy - consider referral for specialist advice
- If statin therapy is contraindicated or not tolerated, consider offering a fibrate, anion exchange resin or ezetimibe as an alternative
- Patients should be reviewed annually, with lipid monitoring, to check efficacy and on-going adherence to therapy

For more information on contraindications and cautions to statin therapies, common drug interactions with statins and for guidance on safety monitoring – see SLCSN Guidance on Prescribing Statin Therapies

References

1. NICE Clinical Guideline CG43: Obesity. December 2006
2. NICE Clinical Guideline 66 (2008) Type 2 Diabetes
3. NICE Guidance CG15: Type 1 diabetes in children, young people and adults. July 2004
4. NICE Technology Appraisal 94: Statins for the prevention of cardiovascular events. January 2006
5. NICE Clinical Guideline 67 (2008) Lipid Modification Cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease
6. MHRA Drug Safety Update Vol 6 Issue 1 - Simvastatin: updated advice on drug interactions – updated contraindications Aug 2012

South London Cardiac and Stroke Networks

Lipid Management for Secondary Prevention

This algorithm applies to all patients with known CVD or other atherosclerotic vascular disease, such as PVD; except those with familial Hyperlipidaemia and diabetics over 40 years

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Identify and address all modifiable risk factors:
Smoking, diet, alcohol intake, BP control and physical activity

- Offer SIMVASTATIN 40mg daily
- If 40mg simvastatin is contraindicated or not tolerated, or there are potential drug interactions*, offer a lower dose of simvastatin or an alternative statin such as atorvastatin.

***For further information, please see SLCSN guidance Simvastatin: Recommendations following revised MHRA safety advice which is available at www.slcsn.nhs.uk**

- Repeat fasting lipid profile within 3 months
- Consider switching to atorvastatin 40mg daily, increasing to 80mg daily in the following patients:
  - **All CVD patients not achieving an average total cholesterol ≤ 5mmol/L and LDL ≤ 3mmol/L on simvastatin 40mg daily**
  - **All diabetic patients over 40 years not achieving an average total cholesterol ≤ 4mmol/L or LDL cholesterol ≤ 2mmol/L on simvastatin 40mg daily**
- Consider ezetimibe 10mg daily as an adjunct in patients failing to achieve cholesterol treatment targets despite maximal statin doses, or where higher statin doses are not tolerated
- For secondary prevention, all patients should be treated to achieve *at least* a total cholesterol ≤ 5mmol/L and LDL cholesterol ≤ 3mmol/L.

Routine safety and efficacy monitoring should be undertaken – see SLCSN Guidance on Prescribing Statin Therapies

Patients should be reviewed annually, with lipid monitoring, to check efficacy and on-going compliance with therapy

Lifestyle issues should be revisited regularly

If statin therapy is contraindicated or not tolerated, consider offering a fibrate, anion exchange resin or ezetimibe as an alternative