NHS
South London
Cardiovascular and Stroke Network

Lipid Management for Primary 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.

Primary prevention is appropriate for patients without known cardiovascular (CV) disease but a calculated CV risk ≥ 20% over the next 10 years

It should not be used for patients with CHD, ischaemic stroke or PVD, diabetes or familial hypercholesterolaemia

Lifestyle Advice and Blood Pressure

The following lifestyle issues should be addressed prior to 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

Initiating Therapy

- **Assessment of global cardiovascular risk is essential before starting lipid-lowering therapy**
- An isolated high total cholesterol without other risk factors may not indicate a need for a statin, except in potential cases of familial hypercholesterolaemia (total cholesterol > 7.5 mmol/L and a family history of CVD) where treatment is essential
- Ideally, cholesterol levels should be measured on two separate occasions and an average of the results used to calculate CV risk. At least one fasting full lipid profile should be taken.
- For patients aged between 40 and 74 years: risk should be calculated using an approved CVD risk calculator, for example**,** Joint British Societies or other Framingham-based CVD risk tool or QRIsk
- Patients of 75 years or over should automatically be considered at high risk, however the decision to treat should take into account individual circumstances
- **Statin therapy should be considered for all patients where CVD risk ≥ 20% over the next 10 years**

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 or pravastatin.

**Max dose 10mg daily with concomitant lipid-lowering dose of niacin*

**Max dose 20mg daily with concomitant amlodipine, diltiazem, amiodarone or verapamil*

Next Steps

No target lipid levels are routinely recommended for primary prevention

- Patients should be reviewed annually to ensure on-going adherence to therapy - lipid monitoring should be considered to confirm this
- Lifestyle issues should be revisited regularly
- No routine increase in statin therapy beyond simvastatin 40mg daily is recommended in this patient group
- Appropriate safety monitoring should be undertaken – see 'SLCSN Guidance on Prescribing Statin Therapies'
- If statin therapy is contraindicated or not tolerated, consider offering a fibrate, anion exchange resin or ezetimibe as an alternative

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

Lipid Management for Primary Prevention

This algorithm applies to patients aged 40-74 years with:

- ***No known CVD***
- ***No known diabetes***
- ***No criteria for familial hypercholesterolaemia (total cholesterol > 7.5mmol/L)***

Calculate CV risk using an approved CV risk assessment tool

10 year CVD risk < 20%

Give appropriate lifestyle advice

Ensure regular review of CVD risk in line with local guidance

CVD risk ≥ 20% over next 10 years

Address all other modifiable risk factors: Smoking, diet, alcohol intake, BP control and physical activity

➢ **Offer SIMVASTATIN 40mg daily**

- If 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 or pravastatin.*

Please see SLCSN guidance Simvastatin: Recommendations following revised MHRA safety advice which is available at www.slcsn.nhs.uk

- No specific treatment targets are recommended for primary prevention
- Patients should be reviewed annually to check on-going compliance with therapy
- Routine safety monitoring should be undertaken in line with SLCSN Guidance on Prescribing Statin Therapies
- Lifestyle issues should be regularly revisited

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