Lipid Modification Therapy[1]

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Coventry & Warwickshire Area Prescribing Committee
Clinical Guideline – CG002

Consider drugs for primary & secondary prevention for which there is evidence in clinical trials of a beneficial impact on CVD morbidity and mortality outcomes

Primary Prevention – Before drug treatment is initiated discuss lifestyle modification and optimise the management of other modifiable CVD risks taking into account additional factors **such as potential benefits from lifestyle modifications, informed patient preference, co-morbidities, general frailty and life expectancy**

Secondary Prevention – Offer lipid modification without delay

Before starting a statin, unless otherwise stated, perform baseline blood tests & clinical assessment inc; BP, smoking status, alcohol intake, BMI, TC, non-HDL-C, HDL-C & TGs, HbA1c, renal function & eGFR, TSH, transaminase level

Offer **20mg atorvastatin** (or drug of similar intensity and acquisition cost) as part of the management strategy for adults over 40 and up to 84 years who have a **10% or greater 10 year risk** of developing CVD, based on risk assessment using QRISK2 and clinical judgement.

Offer **20mg atorvastatin** to type 1 diabetes patients, irrespective of risk, who are older than 40 years **or** have had diabetes for more than 10 years **or** have established nephropathy **or** have other CVD risk factors. Also offer **atorvastatin 20mg** to patients with established CKD and raise dose if 40% non-HDL-C reduction is not achieved and eGFR is 30 or more [Agree use of higher doses with renal specialist if eGFR<30].

If there are potential drug interactions or 20mg atorvastatin is contraindicated, offer an alternative statin of similar intensity/acquisition cost as appropriate

When a decision is made to use a statin prescribe a high intensity statin at low cost

Offer **atorvastatin 80mg** (or statin with similar intensity and acquisition cost) to adults with clinical evidence of CVD

If there is a potential drug interaction, high risk of ADRs or patient preference, offer a lower dose of atorvastatin or alternative statin as appropriate

For people with **acute coronary syndrome** offer a high intensity statin **without delay** and take a lipid sample on admission & then about 3 months after initiation of statin therapy

If a patient is not able to tolerate a high intensity statin aim to treat with the maximum tolerated dose

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 and 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 dose if started on less than atorvastatin 80 mg and the person is judged to be at higher risk because of comorbidities, risk score or using clinical Judgement

Any statin dose reduces CVD risk and so if a patient reports an ADR to high intensity statin therapy then try; Stopping statin and restarting when the symptoms have resolved or reduce dose within same intensity group or change the statin to a lower intensity group

Note: Non-HDL-C = Total cholesterol minus HDL-C

There are a number of drugs which affect the metabolism,and hence side effect potential, of statins – Check BNF when co-prescribing

Check patient compliance before titrating to higher dose

Do not routinely offer: Anion exchange resins – fibrates - nicotinic acid - Omega-3 fatty acid compounds.
Do not offer nicotinic acid or a combination of an anion exchange resin, fibrate or fish oil supplement with a statin
Do not prescribe Co-enzyme-Q10 or vitamin D to increase adherence to statin therapy

Conduct annual medication reviews for all patients prescribed statins and use to discuss medicines adherence, lifestyle modification & address CVD risk factors. Consider non-fasting non-HDL-C blood test to inform discussion.

Measure liver function within 3 months and at 12 months but not again unless clinically indicated. **Do not routinely monitor creatine kinase in people without adverse events, but do measure it in people with muscle symptoms.** If drugs that interfere with statin metabolism are introduced for another illness, consider reducing the statin dose or temporarily or permanently stopping it. **Stop statins and seek specialist advice if unexplained peripheral neuropathy develops. Advise people to seek medical advice if they develop muscle pain, tenderness or weakness.**

When to seek specialist advice for patients;

Intolerant to at least three different statins
With TC of > 9.0mmol/L or a non-HDL-C of >7.5mmol/L even in the absence of a first degree family history of premature CHD
With Triglycerides of > 20mmol/L that is not a result of excess alcohol or poor glycaemic control
With unexplained peripheral neuropathy

	% reduction in low-density lipoprotein cholesterol			
Dose(mg/	10	20	40	80
Fluvastatin		21%	27%	33%
Pravastatin	20%	24%	29%	
Simvastatin	27%	32%	37%	42%*
Atorvastain	37%	43%	49%	55%

Recommended choice of higher intensity statin[1]

1 – Atorvastatin
10mg [37%, £0.03]
20mg [43%, £0.03]
40mg [49%, £0.03]
80mg [55%, £0.05]

2 – 80mg simvastatin*
[% LDL-C lowering, Cost per % lowering per month]
[42%, £0.04]

Statement on the use of rosuvastatin
NICE does not support the prescription of rosuvastatin as there are no data to indicate superior efficacy to atorvastatin 80mg and as the acquisition cost is significantly higher much superior efficacy would need to be established to render the product cost-effective

^Higher intensity statins are those that produce greater LDL- C lowering than simvastatin 40mg (> 40%)

*** Click this box to access MHRA alert re 80mg simavastatin**

1. NICE Clinical Guideline CG181 – Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease **2.** Cost data - Drug Tariff October 2014