Lipid Management for the Primary and Secondary Prevention of Cardiovascular Disease (CVD) in Adults
(Adapted from NICE CG181: Lipid Modification guidance)

Primary CVD prevention including people with type 2 diabetes
All patients without known CVD, familial hypercholesterolaemia or other inherited disorders of lipid metabolism

Estimate a 10-year risk of CVD using the QRisk2 risk calculator*
(For ages between 25 and 85 years**, including those with type 2 diabetes)

If QRisk2 < 10% over the next 10 years
Give lifestyle advice
Ensure regular review of CVD risk in line with NICE guidance

If QRisk2 ≥ 10%*** over next 10 years
Identify and address all modifiable risk factors
Smoking, diet, obesity prevention, alcohol intake, physical activity, blood pressure and blood glucose / HbA1c
Health practitioners may refer to NICE guidelines on behaviour change for further support on lifestyle modification

Reassess CVD risk after a trial of lifestyle modification and if QRisk2 remains ≥10% over the next 10 years
OFFER atorvastatin 20mg daily in addition to lifestyle modification
(If potential drug interactions, high risk of adverse effects, patient preference or 20mg not tolerated, use a lower dose of atorvastatin or consider an alternative generic agent)
Please also refer to guidance on prescribing statins (www.slwmcg.nhs.uk)
Health practitioners may refer to NICE patient decision aid to support patients making an informed choice

Reinforce lifestyle interventions and check adherence to medication
- There are no specific lipid treatment targets for primary prevention, but if patient is considered higher risk due to the presence of multiple cardiovascular risk factors, consider increasing statin dose if necessary to reduce non-HDL cholesterol by > 40%
- from baseline
- Reinforce lifestyle interventions and check adherence to medication
- Routine safety and efficacy monitoring should be undertaken. Please also refer to Guidance on prescribing statins (www.slwmcg.nhs.uk)
- Patients should be reviewed annually, with lipid monitoring, to check efficacy and on-going adherence to therapy. Lifestyle issues should be revisited regularly

If statin therapy is contraindicated or not tolerated or not effective, do not offer nicotinic acid or bile acid binder, omega-3 fatty acids to lower CV disease risk. Do not offer co-enzyme Q10 or vitamin D to increase adherence to statin therapy. Do not routinely offer fibrate therapy. People with primary hypercholesterolaemia may be considered for treatment with ezetimibe in line with NICE TA385 (details overleaf)

Once statin therapy has been initiated - repeat lipid profile at 3 months
- Reinforce lifestyle interventions and check adherence to medication
- Aim to reduce non-HDL cholesterol by 40% from baseline
  - If baseline cholesterol is unknown, as a minimum, patients should be treated to achieve at least a total cholesterol ≤ 5mmol/L and non-HDL cholesterol ≤ 3.8mmol/L
  - Increase dose if started on < 80mg atorvastatin and not achieving adequate reductions in cholesterol at higher risk due to their co-morbidities, or using clinical judgement – seek specialist renal advice
- If primary hypercholesterolaemia, consider ezetimibe in line with NICE TA385 (details overleaf)
- Consider referral for specialist advice if patients not achieving a > 40% fall in non-HDL cholesterol on maximum tolerated dose of statin

START atorvastatin 80mg daily with lifestyle modification
(If potential drug interactions, high risk of adverse effects, patient preference or 80mg not tolerated, use a lower maximum tolerated dose of atorvastatin or consider an alternative agent)
Please refer to guidance on prescribing statins (www.slwmcg.nhs.uk)
Health practitioners may refer to NICE patient decision aid to support patients making informed choice

People with chronic kidney disease (CKD)
(eGFR < 60ml/min/1.73m² and/or albuminuria)

Acute coronary syndromes and secondary prevention of CVD
All patients with established CVD or atherosclerotic vascular disease

Do not delay statin treatment to manage modifiable risk factors

* CVD risk score will under estimate risk in those with additional risk due to underlying medical conditions or treatments such as those treated for HIV, serious mental health problems, autoimmune disorders, other systemic inflammatory disorders or taking medication that causes dyslipidaemia (e.g. corticosteroids, immunosuppressant drugs or antipsychotics), or lipid therapy. Use informed clinical judgement. **People ≥ 85 years are at high CV risk due to age alone, but consider other CV risk factors, co-morbidities and patient preferences before initiating therapy. ***Qrisk2 threshold of 20% applies for the introduction of antihypertensive therapies in people with hypertension.

QRisk2 is a risk calculator used to predict the risk of a cardiovascular event within the next 10 years.
Summary of NICE guidance on Ezetimibe for treating primary heterozygous-familial and non-familial hypercholesterolaemia TA 385

**Ezetimibe recommendations from NICE TA385**

1.1 This guidance should be used with NICE's guidelines on cardiovascular disease: risk assessment and reduction, including lipid modification and familial hypercholesterolaemia: identification and management

1.2 Ezetimibe monotherapy is recommended as an option for treating primary (heterozygous-familial or non-familial) hypercholesterolaemia in adults in whom initial statin therapy is contraindicated

1.3 Ezetimibe monotherapy is recommended as an option for treating primary (heterozygous-familial or non-familial) hypercholesterolaemia in adults who cannot tolerate statin therapy (as defined in section 1.6)

1.4 Ezetimibe, co-administered with initial statin therapy, is recommended as an option for treating primary (heterozygous-familial or non-familial) hypercholesterolaemia in adults who have started statin therapy when:
   - serum total or low-density lipoprotein (LDL) cholesterol concentration is not appropriately controlled (as defined in section 1.7) either after appropriate dose titration of initial statin therapy or because dose titration is limited by intolerance to the initial statin therapy (as defined in section 1.6) and
   - a change from initial statin therapy to an alternative statin is being considered.

1.5 When prescribing ezetimibe co-administered with a statin, ezetimibe should be prescribed on the basis of lowest acquisition cost.

1.6 For the purposes of this guidance, intolerance to initial statin therapy is defined as the presence of clinically significant adverse effects that represent an unacceptable risk to the patient or that may reduce compliance with therapy.

1.7 For the purposes of this guidance, appropriate control of cholesterol concentrations should be based on individual risk assessment according to national guidance on managing cardiovascular disease in the relevant populations.

**References**
