Pathways for optimising lipid management in secondary prevention of cardiovascular disease: purpose and development of the pathways

Purpose of the pathways

Cardiovascular disease (CVD) is a leading cause of premature death and disability due to the consequences of stroke, myocardial infarction and heart failure. The NHS Long Term Plan outlined an ambition to support the prevention of 150,000 heart attacks, strokes and dementia cases, making CVD the largest area where lives can be saved over the next 10 years.

Lipid management in England must improve to drive better CVD outcomes – every 1 mmol/L reduction in LDL-C is tied to a 22% reduction in major vascular events after 1 year. CVD is also the largest driver of inequalities in life-expectancy in England. The excess non-covid mortality currently seen is due to cardiovascular disease.

To address the clinical priority of improved lipid management, two pathways – one for acute cardiovascular disease in secondary care and one for primary care clinicians - have been developed. These pathways meet the need to provide clear and simple guidance for clinicians on how optimal lipid management may be achieved.

- **What these pathways are:** these pathways provide an additional resource which can be used to support patient management. They have been developed to support healthcare professionals implement NICE and other relevant evidence in lipid management in secondary prevention. They should be considered alongside other relevant guidance e.g. NICE NG 238 (December 2023), "Cardiovascular disease: risk assessment and reduction, including lipid modification"
- **What these pathways are not:** these are not comprehensive clinical guidelines setting out all clinical scenarios, nor do they seek to set out the clinical evidence base for interventions which is covered in the relevant NICE Technology Appraisals
- These pathways define a High Intensity Statin as Atorvastatin 80 mg once daily (40 mg once daily if dose reduction considered indicated) or rosuvastatin 20 mg once daily if atorvastatin is contraindicated

Development of the pathways

These pathways were developed in line with NICE Guidance and adapted by a Clinical Advisory Group, chaired by Professor Gary Ford (Chief Executive of Oxford AHSN and Consultant Stroke Physician) and Helen Williams, National Clinical Director of CVD Prevention, NHS England. Membership included representation from the NHS England National Clinical Directors for Stroke, Heart Disease, Diabetes & Obesity, and Primary Care, alongside primary care and secondary care clinical specialists in cardiovascular disease.

The pathways are based on the Accelerated Access Collaorative lipid management pathway, as well as a primary care pathway developed by UCLPartners. The primary care pathway is supported by the broader UCLPartners Proactive Care Frameworks including comprehensive search and stratification tools and resources to support clinical care, self-management and behaviour change.

Supporting information

- Use of these pathways, including adaptation to local need, is at the discretion of clinicians. Adoption of these pathways should follow routine local clinical governance processes
- **Lipid Optimisation Pathway following an Acute Cardiovascular Event** © Oxford Academic Health Science Network, prepared to aid clinical practice and support education activities – it can be used and reproduced for this purpose
- **Lipid Optimisation Pathway for Secondary Prevention in Primary Care** © UCLPartners 2022, developed as part of the UCLP Proactive Care Frameworks to aid clinical practice and support education activities - it can be used and reproduced for this purpose

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Lipid Optimisation pathway following an acute cardiovascular [acute ischaemic stroke / transient ischaemic attack (TIA) or acute coronary syndrome (ACS)] or peripheral arterial disease event

Health Innovation Network

This pathway applies for the first six months following an acute event (as described in the title) within an acute setting

- **Obtain full Lipid Profile, liver transaminase, HbA1c, and eGFR on admission**
- **Review pre-event lipid lowering therapy (LLT) including statin therapy tolerance and adherence**
- **Provide lifestyle advice, using shared-decision making to incorporate patient preference in treatment decisions (take account of comorbidities and frailty)**
- **Commence / optimise all patients on high intensity (HI) statin unless statin intolerant**
- **Set an LDL-C target, and plan LLTs regimen and escalation needed to achieve target; aim for LDL-C < 1.8mmol/L[1] ; or non-HDL-C < 2.5 mmol/L if no LDL-C result**
- **Following ACS, or where patients have had multiple events, a lower LDL-C target < 1.4 mmol/l may be appropriate**
- **Do not de-escalate therapy unless where issues of tolerability or drug interactions**

SEVERE HYPERLIPIDAEMIA

If TC >7.5mmol/L and/or LDL-C >4.9mmol/L and/or non-HDL-C >5.9mmol/L, a personal and/or family history of confirmed CHD (<60 years) and with no secondary causes: suspect familial hypercholesterolaemia (possible heterozygous FH). Do not use QRISK risk assessment tool.
If non-fasting TG >4.5mmol/l, repeat with a fasting measurement, identify and manage any potential secondary causes.

Not on statin or other LLT

Initiate LLT
HI statin[2] (+ Ezetimibe if deemed necessary to reach target)

On statin or other LLT

LDL-C ≥ 2.6mmol/L	LDL-C 1.8 to <2.6mmol/L	LDL-C < 1.8mmol/L
Intensify LLT HI statin[2] + Inclisiran[3] (± Ezetimibe) or HI statin[2] + PCSK9i[4] (± Ezetimibe)	***Intensify LLT*** HI statin[2] + Ezetimibe	***Continue LLT*** Add Ezetimibe if on HI statin

Pre-event history of statin intolerance

Not on LLT	On LLT LDL-C ≥ 1.8mmol/L	On LLT LDL-C < 1.8mmol/L
Initiate / intensify LLT Ezetimibe +/- Bempedoic acid or Inclisiran[3] or PCSK9i[4]		***Continue LLT***

Consider reassessment of statin intolerance

- **At 3-8 weeks following acute event undertake secondary care review**
- **Repeat full lipid profile, liver transaminase, HbA1c, and eGFR determine if at LDL-C target, assess adherence to therapy and any adverse events**

At target:
Continue LLT

Not at target: *Intensify / change LLT*
Set an LDL-C target, and plan LLTs regimen and escalation needed to achieve target; where an individual qualifies for injectable therapies, as per NICE technology appraisals, consider these in preference to ezetimibe to prevent lipid levels being lowered but remaining above the LDL-C target and below thresholds for initiating injectable therapies

- **Provide clear management plan of LLT to Primary Care Team and Patient including LDL-C and non-HDL-C target**
- **Agree follow up plan in primary or secondary care including arrangements to administer 2nd dose Inclisiran where relevant**

[1] This pathway aligns to NICE guidance NG238, other than it uses a target of LDL-C <1.8mmol/L, recommended by European Society of Cardiology guidelines. [2]Atorvastatin 80 mg od (40 mg od if dose reduction indicated) or rosuvastatin 20 mg od if atorvastatin contraindicated / preferred. [3]Inclisiran is a NICE approved option where LDL-C ≥ 2.6 mmol/l despite maximum tolerated statin therapy. [4]PCSK9is are NICE approved option where LDL-C > 3.5 mmol/l and FH or very high risk (recurrent CV events or multiple vascular beds) or > 4.0 mmol/l high risk patients (ACS, ischaemic stroke)

BIASP British & Irish Association of Stroke Physicians Advancing stroke medicine
Primary Care Cardiovascular Society Empowering primary care to deliver the best in cardiovascular health
HEART UK THE CHOLESTEROL CHARITY
British Cardiovascular Society
UK Clinical Pharmacy Association

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