CVD Prevention

Driving Innovation and Improvement in CVD Care

Health Innovation East Midlands

NHS

April 2024

Q&A – Secondary Prevention Lipid Optimisation

Health Innovation East Midlands are 'the innovation arm of the NHS' for the East Midlands Region. We are supporting a number of cardiovascular disease (CVD) innovation and improvement projects across the region and are committed to sharing good practice through education within our Lipid Optimisation Workstream and CVD Prevention Programme.

This document is designed to support lipid optimisation in primary care by answering some of the frequently asked questions we hear from practitioners who are supporting patients to lower their cholesterol after a CVD event (secondary prevention).

The role of HIEM and this document is not to provide clinical advice, but to connect practitioners with well-sourced, reputable information.

Can you use multiple medicines at a time to lower LDL-C?

Yes! The collection of NICE recommended lipid lowering medicines have different modes of action, so can be used together to target cholesterol in different ways.

NICE advises a pathway approach to secondary prevention lipid optimisation; with lifestyle modification alongside a high intensity statin, and the addition of other lipid lowering medications (ezetimibe, bempedoic acid, inclisiran, and/or PCSK9i) as clinically indicated.

NICE NG238 recommends the addition of ezetimibe to a high intensity statin even if a patient's LDL-C is at or below target, so to further reduce cardiovascular risk.

What LDL-C reading should we aim for?

The new NICE guidance NG238 recommends a secondary prevention LDL-C target of 2.0 mmol/L. International research consistently recommends an LDL-C target of 1.8 mmol/L which has been adopted by some ICB local pathways. Following a specialist referral, a different target may be set for a patient based on the persons individual risk factors.

Is there such thing as ‘going too low’?

No! As indicated in NICE NG238, the lower the better for post event LDL-C. Every 1mmol/L reduction in LDL-C is tied to a 22% reduction in major vascular events after 1 year. (NHSE ‘Improving Lipid Management to reduce cardiovascular disease and save lives’ 2023)

Are some statins better at reducing LDL-C than others?

Yes! High intensity statins reduce LDL-C significantly more than low intensity statins. NICE NG238 recommends starting patients on Atorvastatin 80mg (unless the patient has a diagnosis of CKD).

The following table from the AAC Summary of National Guidance for Lipid Management for Primary and Secondary Prevention of CVD (2024) advises around likely LDL-C reduction using different statin medications.

Approximate reduction in LDL-C					
Statin dose mg/day	5	10	20	40	80
Fluvastatin			21%	27%	33%
Pravastatin		20%	24%	29%	
Simvastatin		27%	32%	37%	42%
Atorvastatin		37%	43%	49%	55%
Rosuvastatin	38%	43%	48%	53%	
Atorvastatin + Ezetimibe 10mg		52%	54%	57%	61%

Low intensity statins will produce an LDL-C reduction of 20-30%
Medium intensity statins will produce an LDL-C reduction of 31-40%
High intensity statins will produce an LDL-C reduction above 40%
Simvastatin 80mg is not recommended due to risk of muscle toxicity

Is ‘statin intolerance’ real?

Yes! However, how common ‘true’ statin intolerance is, is debated. Myopathy side effects in particular have received great media attention and are felt to affect public confidence and patient adherence to statin therapies. Whether experiencing ‘true’ statin intolerance or not, patents must be supported to feel comfortable with their treatment. Ensure regular reviews and shared decision making so that treatment alternatives can be offered to patients quickly. Some ICBs have a specific statin intolerance pathway, other ICBs recommend following the NHSE AAC ‘Statin Intolerance Pathway’ (2023).

Should I measure cholesterol in Non HDL-C or LDL-C?

For the types of cholesterol currently advised to be treated in NICE NG238 and the AAC National Lipid Management Pathway, LDL-C is a more accurate measure. Some pathways and reporting systems use a Non HDL-C measure so it is important to check your local pathway/ protocol to ensure accurate reporting, including for QOF. Check with your clinical lead how your lab is reporting LDL-C; if they are reporting LDL-C automatically or if you need to request it as a part of the lipid profile.

Do lipid profiles require fasted blood tests?

No! NICE NG238 advises that full lipid profile blood tests do not need to be fasted. LDL-C calculations are more accurate when blood tests are fasted, however, many practitioners feel that the practical benefits of non-fasted tests outweigh this margin of error. When results

are close to the threshold for inclusion/ exclusion to a treatment, a further fasted sample may be requested.

How much will different medicines lower cholesterol?

The following table may help your discussions with patients when planning which combinations of therapies may be most beneficial for them. (Clinical trial LDL-C reduction figures can be found on the Electronic Medicines Compendium).

Drug	Administration	LDL-C Reduction
High-intensity statin	Oral	37-55%
Ezetimibe	Oral	18-23%
High-intensity statin + Ezetimibe	Oral	52-61%
Inclisiran	Twice yearly injections	52%
PCSK9 Inhibitors	Biweekly injections	>60%
Bempedoic Acid	Oral	17-28%
Bempedoic Acid + Ezetimibe	Oral	36-38%

Is FH managed differently?

Yes! A person with Familial Hypercholesterolaemia (FH) will not be able to manage their LDL-C with lifestyle modifications alone and is at high risk of a CVD event. NICE CG71 advises a reduction of at least 50% LDL-C from baseline for people with FH. If you suspect a diagnosis of FH, begin escalation of therapy straight away, even if waiting for a specialist referral or assessment. Some ICBs have endorsed FH specific lipid management pathways with a lower LDL-C target such as 1.4 mmol/L.

Do I need to worry about triglycerides?

Yes! High triglycerides can indicate a higher risk of cardiovascular disease and events. Your ICB's secondary prevention lipid management pathway and formulary status will advise on the use of icosapent ethyl to reduce cardiovascular risk for people with raised triglycerides.

Refer for an urgent specialist review if triglycerides are greater than 20mmol/L or remain higher than 10mmol/L after 5 -14 day review (see your local protocol) due to risk of acute pancreatitis. Please consult the AAC Summary of National Guidance for Lipid Management for Primary and Secondary Prevention of CVD (2024) for more detail.

CVD Prevention

Does cholesterol need to be managed by a GP?

No! Cholesterol can be managed, in conjunction with patients, by many of the Primary Care Workforce. In some PCNs/ practices, cholesterol management is led by Pharmacists or Nurses and supported heavily by Nurse Associates, Health Care Assistants and Pharmacy Technicians.

Contact Senior Innovation and Improvement Leads:

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