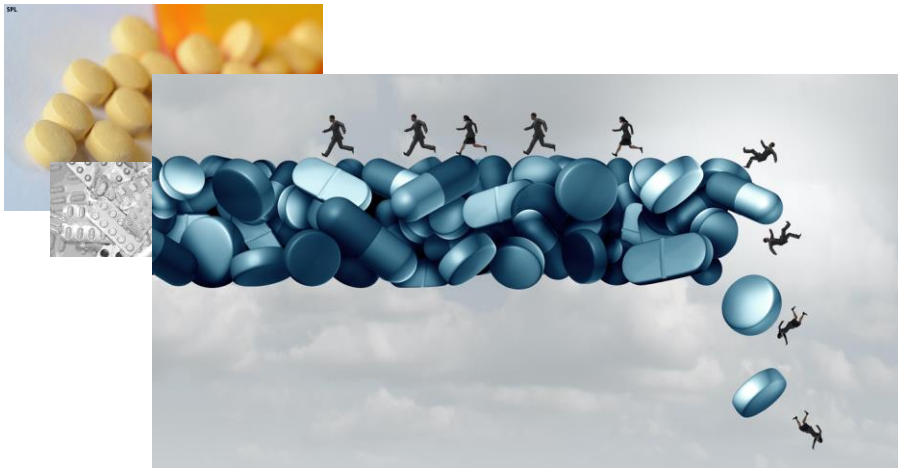


NMP Lunch & Learn Training Session

Lipids Management

17th November 2026



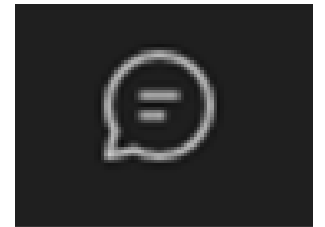
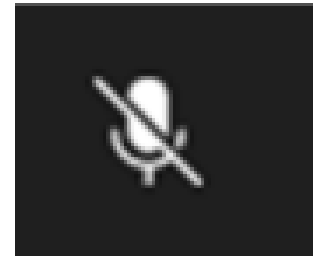
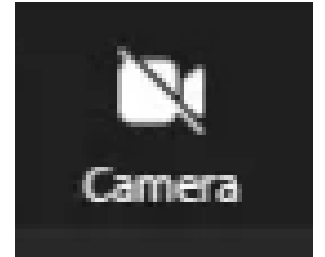
Speaker:

- MARIE WILCOCK – LIPID & FH SPECIALIST NURSE
- Declarations: Honorarium from Novartis, Daiichi Sankyo, Agmen.

Welcome & Housekeeping

Thank you for joining us today!

- ✓ The session is for 45-minutes (30-minute presentation and 15-minute Q&A session).
- ✓ Please switch off your cameras and put yourselves on mute.
- ✓ Please use the chat function if you want to ask a question or for comments.
- ✓ Please respect others' views and opinions. (We have prescribers from across the system on the call – primary, secondary care and community).
- ✓ Please use the chat function to network with your peers and share ideas.
- ✓ At the end of the session there will be a short online feedback form (live!).

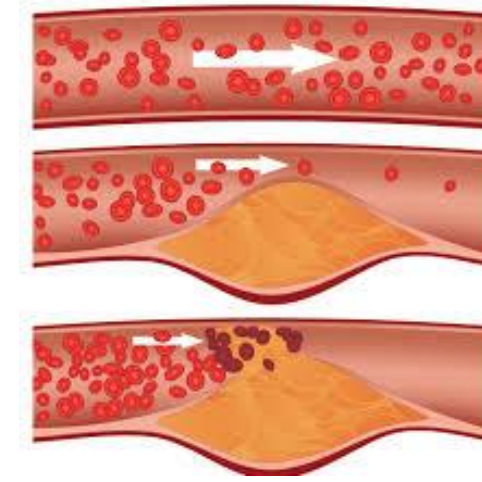


Please note the 30-minute presentation will be recorded, and the slides and the recording will be uploaded to the LSC Training Hub website for you to download.

Disclaimer

- If you do access the slides and recordings to the bitesize sessions using the following link: [Independent Prescribing – Lancashire and South Cumbria Training Hub](#), please be aware that the sessions were intended to support Non-Medical Prescribers in their development and understanding of the subject area, however these sessions should not be considered the sole source of your learning. Please ensure that you also refer to your Trust/Employer guidance, up-to-date national guidance e.g. NICE guidance and professional body standards alongside these bitesize sessions.
- The information in the sessions are current and accurate at the time of creation.

Importance of lipid lowering



Lancashire &
South Cumbria
PRIMARY CARE TRAINING HUB



Treatment options

*Marie Wilcock
Lipid/FH specialist Nurse – Blackpool
September 2026*

Today in England

380

people will die
from cardiovascular
disease ...

... around

100

younger
than

of them
will be

75

7m+

people are living
with cardiovascular
disease

220

hospital admissions
will be due to a
heart attack

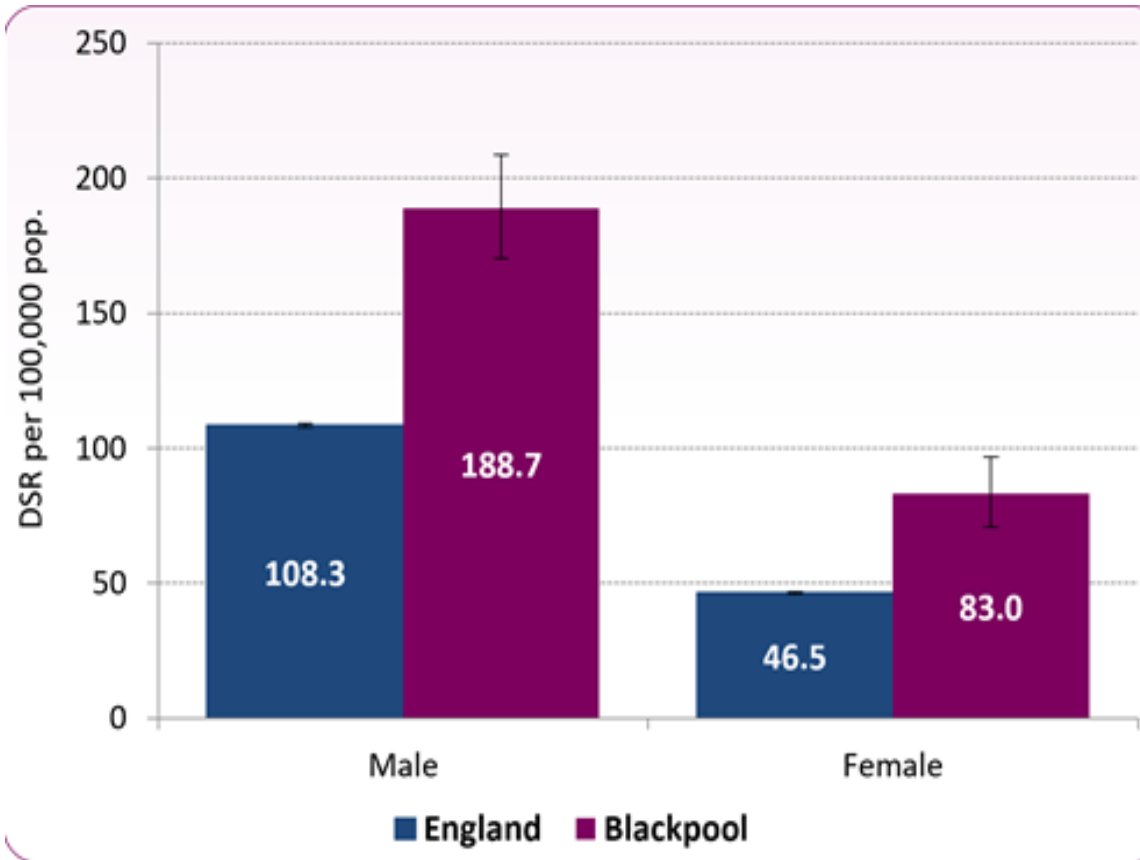
140

people will die
from coronary
heart disease

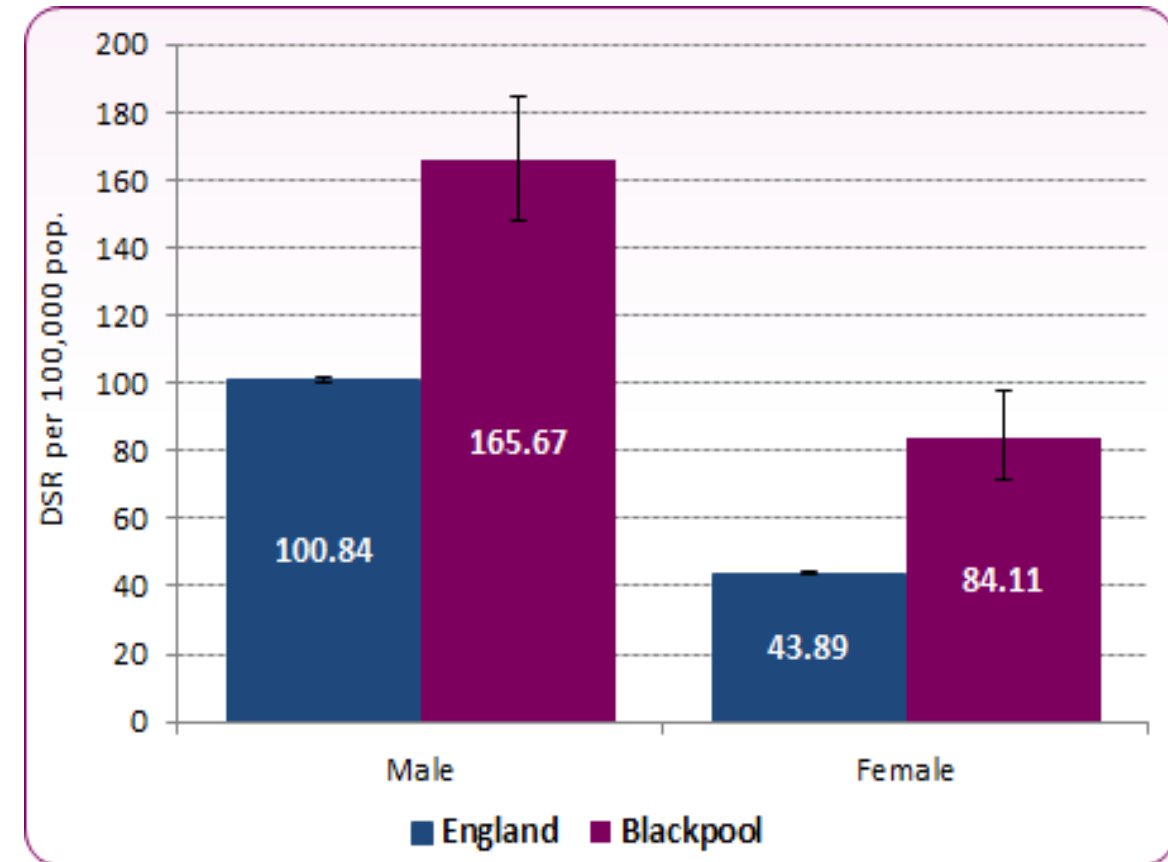
12

babies will be
diagnosed with
a heart defect

Deaths from CVD Under 75's



2022-2024



2018-2020

The Cost of CVD in England

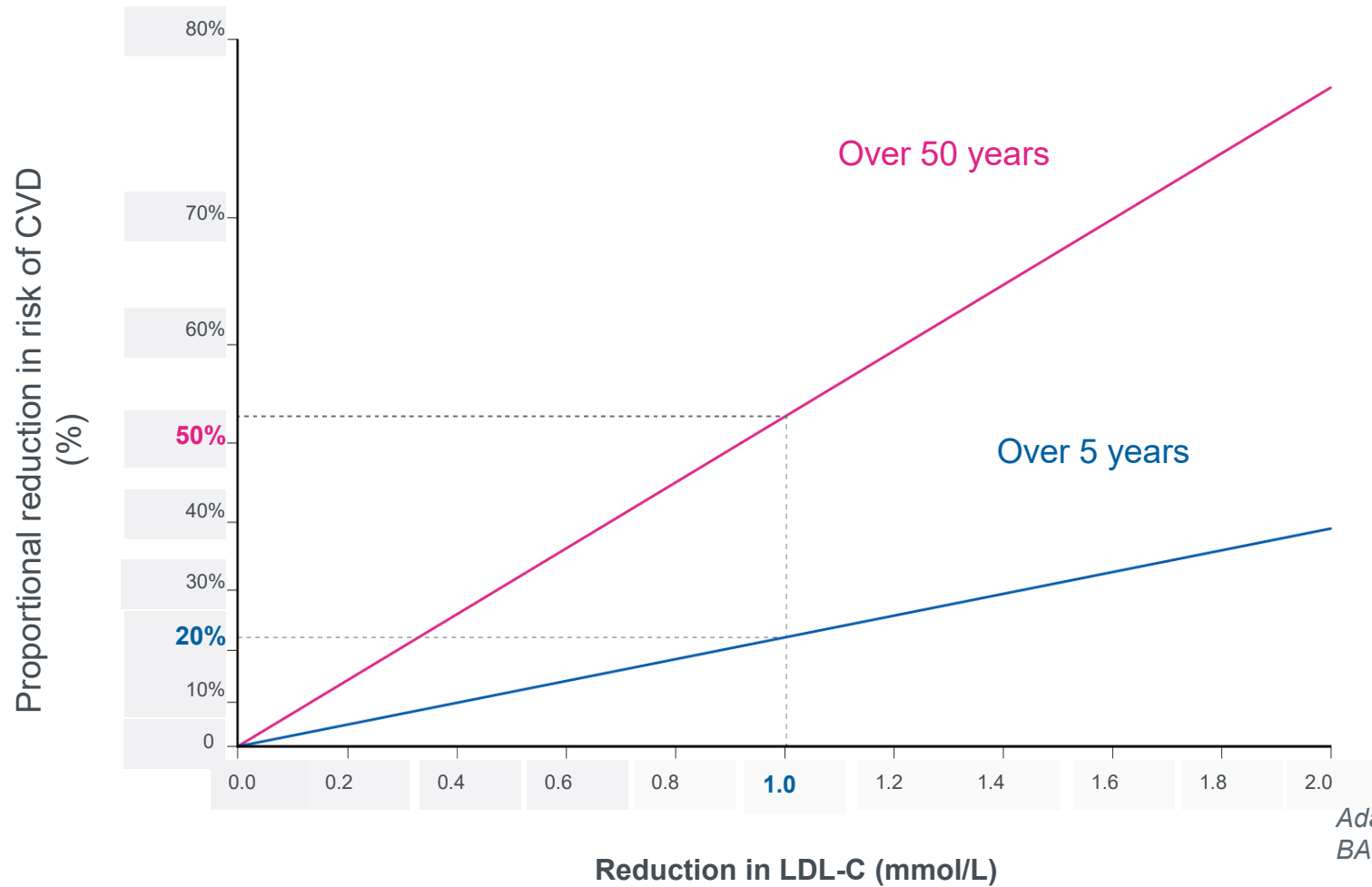


Healthcare costs relating to the treatment of CVD are estimated at £7.4 billion per year



The wider economical cost of CVD in is estimated to be £15.8 billion per year.

Reducing LDL-C as low as possible for as long as possible reduces the CVD risk later in life



A 1 mmol/L reduction in LDL-C for a median follow-up of 52 years results in a >50% reduction in CHD risk

A 1 mmol/L reduction in LDL-C for a median follow-up of 5 years results in a 22% reduction in CHD risk

Adapted from Ference BA, et al. 2017.

How are we doing?

CVD Prevent Audit Data NHS Lancashire & South Cumbria ICB up to March 2026

**Patients without CVD with a
Qrisk score $\geq$ 10% on LLT**
CVDP006CHOL:

55.28%

(GP recorded data)

**Patients with
CVD on LLT**
CVDP009CHOL

85.98%

**Patients with CVD
achieving NICE targets in
preceding 12mnths.**
CVDP012CHOL

51.73%



NICE Primary Prevention Guidelines

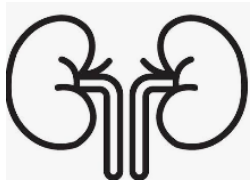


- ❖ First line treatment – lifestyle change if appropriate.
- ❖ If Qrisk is $>10\%$ consider LLT
- ❖ 20mg Atorvastatin providing liver function is satisfactory
- ❖ Repeat lipid levels & LFT's after 3 months – aiming for 40% reduction in Non-HDL-C, consider titration / adding in additional therapies
- ❖ If Qrisk $< 10\%$ take into account patient preference and the likelihood of being able to make lifestyle changes.

Do Not Use Qrisk for Patients already at risk of CVD



- ❖ T1DM > 40 yrs age, diagnosed for >10yrs, established neuropathy or have other CVD Risk Factors



- ❖ CKD - an estimated glomerular filtration rate less than 60ml/min/1.73 m² and/or albuminuria. Discuss the use of higher doses with a renal specialist if eGFR is <30ml/min/1.73m²



- ❖ Suspected Familial Hypercholesterolaemia



- ❖ Over 85 years of age.

Treatment in the Elderly population

LLT in patients with CVD is recommended for older and younger patients alike – but what about primary prevention?

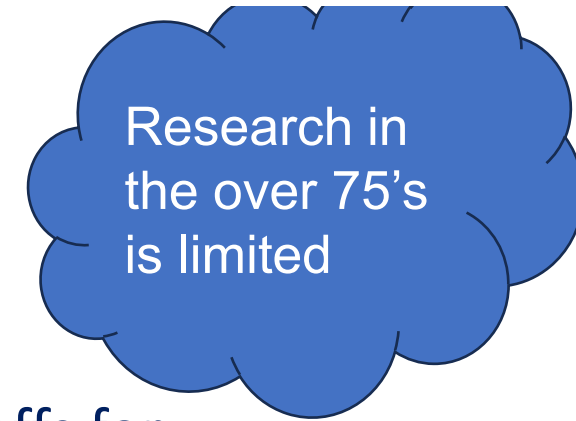
↑ age associated with ↑ risk for CVD events

HOWEVER

This is a heterogeneous group not only in terms of age but also, comorbidities, functionality, frailty, etc . Which can make age cut offs for initiating LLT arbitrary.

The decision on whether to commence lipid lowering therapy for primary prevention needs to be based on the individual patient.

Consider, life expectancy, pre-existing muscle pains , polypharmacy, patient wishes, risk of adverse reactions (especially with low BMI, CKD, hypothyroidism)



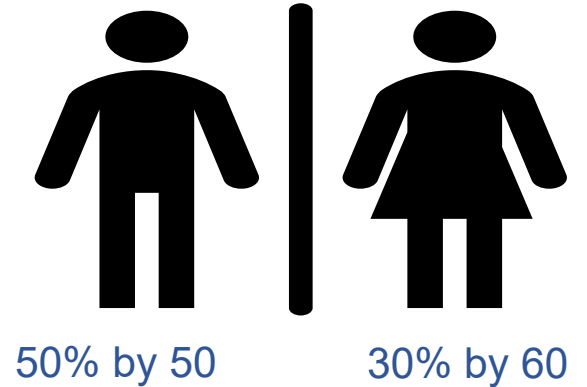
Familial Hypercholesterolaemia - An Autosomal Dominant Lipid disorder

Prevalence UK estimated as 1:250
(heterozygous)

1st degree relatives of a person with FH
have a 50% chance of inheriting that
variant.

It subjects patients to a lifelong exposure
of high levels of LDL cholesterol and
therefore at risk of premature CVD

Untreated MI RISK



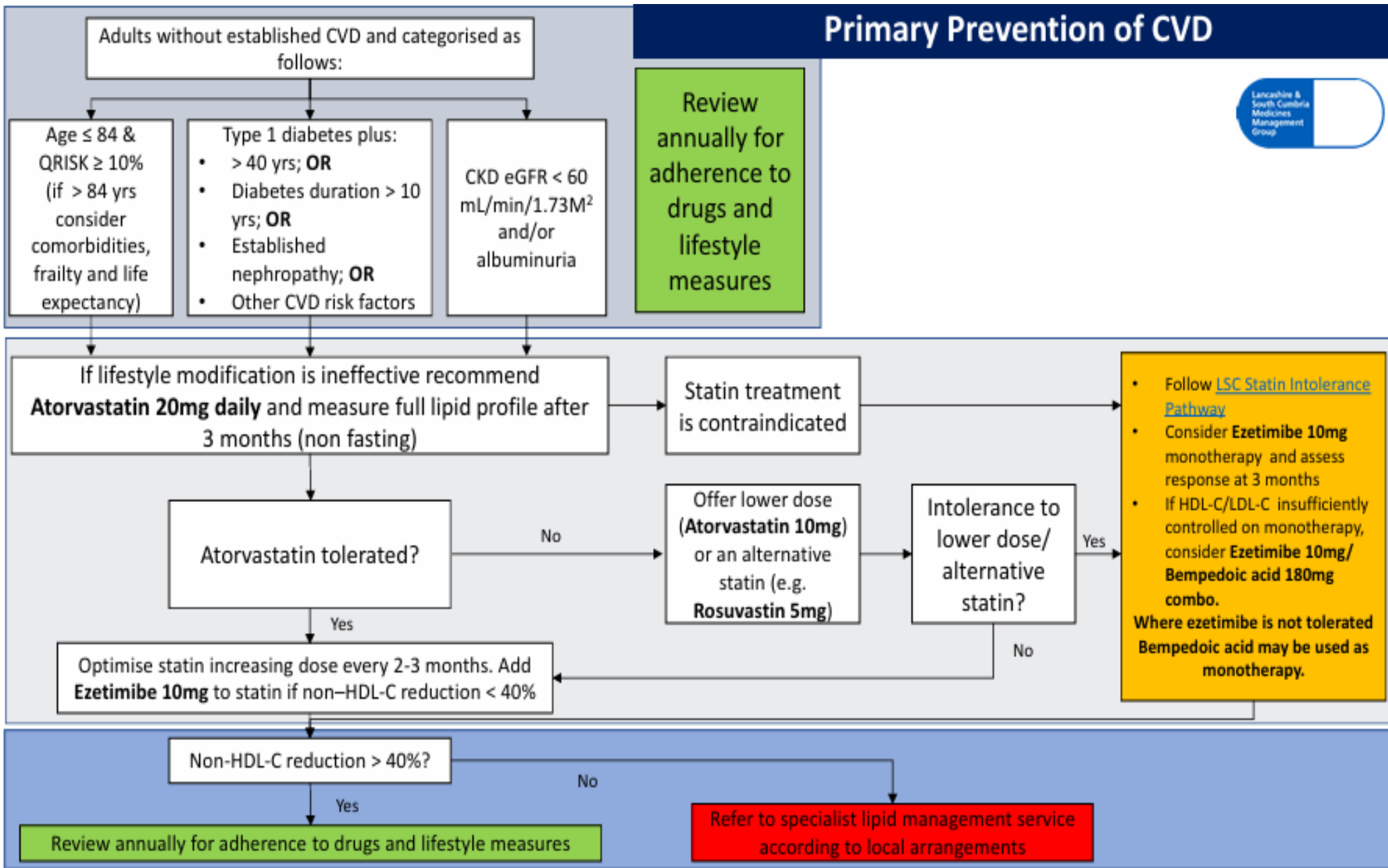
- **Common genetic disorder**
- **Easy to diagnose**
- **Easy to treat**



How to Diagnose FH (NICE CG 71)

- Consider FH in adults with total cholesterol $>7.5\text{mM}$, especially if there is a family history of premature CHD ($<\text{age } 60$)
- Systematically search primary care records for people:
 - Age <30 with total cholesterol $>7.5\text{mM}$
 - Age ≥ 30 with total cholesterol $>9\text{mM}$
- Exclude secondary causes of hyperlipidaemia
- Use the Simon Broome Criteria, Dutch Lipid Clinic Network Score for a clinical diagnosis of FH
- Refer to an FH specialist service for DNA testing if possible or definite FH on Simon Broome criteria or they have a DLCN score greater than 5
- Carry out cascade DNA testing of 1st, 2nd and where possible 3rd degree biological relatives of people with a genetic diagnosis of FH

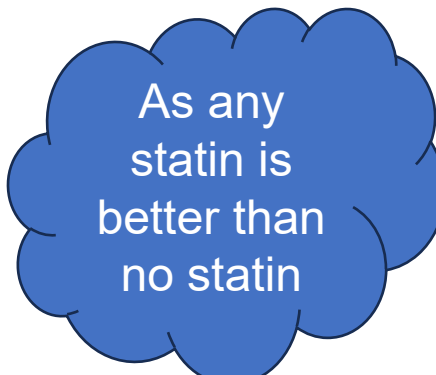
Primary Prevention of CVD



NICE guidance Secondary Prevention

Initial treatment Atorvastatin 80mg

- Offer statin therapy to all patients with established CVD
 - Do not delay to manage modifiable risk factors
- Use a lower dose if:
 - Potential drug interactions
 - High risk of adverse events
 - Patient preference
- Reassess lipid profile after 3 months and see if target
- If target not reached
 - Discuss adherence and timing of dose
 - Optimise adherence to diet and lifestyle measures
 - Consider increasing dose if started on <80mg Atorvastatin
 - Consider role of other agents



As any
statin is
better than
no statin

Secondary Prevention of CVD



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CVD (Stroke, PAD, Angina, MI, Revascularisation)

Initiate **Atorvastatin 80mg daily (alternative - rosuvastatin 20mg)** and measure full lipid profile after **3 months** (non fasting) and check adherence to statin and lifestyle measures

If recommended statin treatment is contraindicated or not tolerated, Follow [LSC Statin Intolerance Pathway](#)

Refer to lipid clinic if:

- TC > 9.0 mmol/L and/or
- LDL-C > 6.5 mmol/L and/or
- Non-HDL-C > 7.5 mmol/L
- Triglycerides remain over 10 mmol/L

* **Icosapent ethyl** is an option for patients on statins with fasting triglycerides $\geq$ and LDL-C between 1.04 and $\leq$ 2.6 mmol/L

Supporting NICE guidance:

Ezetimibe - [TA385](#)

Alirocumab - [TA393](#)

Evolocumab - [TA394](#)

Bempedoic acid - [TA694](#)

Inclisiran - [TA733](#)

Icosapent ethyl - [TA805](#)

Cardiovascular disease: risk assessment and reduction, including lipid modification – [NG238](#)

Colesevelam is an option for cardiovascular disease prevention in hyperlipidaemia when the patient is intolerant of all other options.

No - Check adherence to lifestyle measures and drug therapy and consider further drug therapy

LDL-C $\leq$ 2.0mmol/L

(non-HDL-C $\leq$ 2.6 mmol/L) on maximum tolerated statin dose (or other treatment)? *

Yes

Continue with lifestyle measures and adherence to medication

LDL-C > 2.0 mmol/L and < 2.6 mmol/L

Offer ezetimibe 10mg daily +/- Bempedoic acid 180 mg daily . Where ezetimibe is not tolerated Bempedoic acid may be used as monotherapy. Review within one to three months. If non-HDL C remains >2.6mmol/L: consider injectable therapies arrange a fasting blood test and assess eligibility.

LDL-C $\geq$ 2.6 mmol/L

Offer [inclisiran](#) and monitor lipid profile at 3 months then annually

LDL-C $\geq$ 4 mmol/L (or 3.5 mmol/L if recurrent events)

Refer for PCSK-9 inhibitors ([inclisiran](#) can be offered if patient/clinician preference)

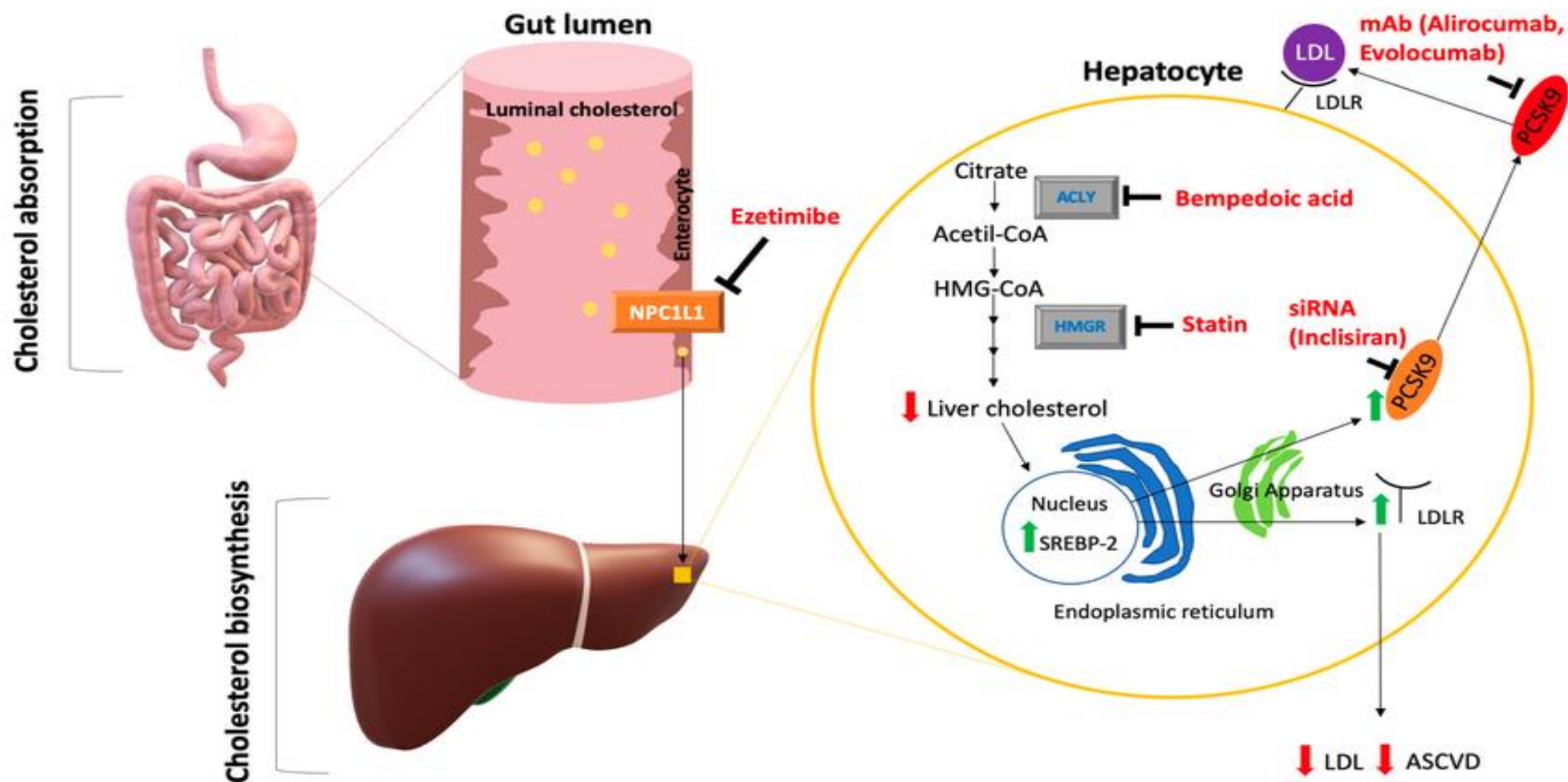
Review annually for adherence to drugs and lifestyle measures and offer full lipid profile

Consider Target LDL-C when considering treatment

- ❖ **Assess what LDL-C target prior to prescribing medication.**
- ❖ **If adding a medication will take patients below the criteria for some therapies but not get them to target – reconsider.**

Example: Patient on 80mg Atorvastatin, previous MI, with an LDL-C of 2.8mmol – commenced Ezetimibe. LDL-C now 2.38mmol/L. Not at target but does not meet criteria for injectables.

Lipid Lowering Pharmaceutical Tool Kit



Statin Therapy

Approximate reduction in LDL cholesterol					
Statin dose (mg/day)	5 mg	10 mg	20 mg	40 mg	80 mg
Fluvastatin			21%	27%	33%
Pravastatin		20%	24%	29%	
Simvastatin	Table 2. Intensity and predicted LDL-lowering effects of various statin regimens (NHS England, 2023a).				42%
Atorvastatin		37%	43%	49%	55%
Rosuvastatin	38%	43%	48%	53%	
Atorvastatin + ezetimibe 10 mg		52%	54%	57%	61%

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

Statin Intolerance

- 50% of patients stop statin therapy in the 1st year¹
- This has mainly been attributed to the Nocebo effect^{2,3}
- Other causes:
 - Lack of understanding why they are taking the drug
 - Risk of Potential side effects
 - Bad Press
 - Polypharmacy



1.Vinogradover Y et al. (2016) Discontinuation and restarting in patients on statin treatment: prospective open cohort study using a primary care database, *BMJ*, 353: i3306. 2.Howard JP et al. (2021) Side Effect Patterns in a Crossover Trial of Statin, Placebo, and No Treatment. *Journal of the American College of Cardiology*, 78(12):pp.1210-1222. doi: 10.1016/j.jacc.2021.07.022. PMID: 34531021; PMCID: PMC8453640. 3.Slowski A. N-of-1 Trial Finds No Effect of Statins on Muscle Symptoms. *JAMA*. 2021;325(16):1602. doi:10.1001/jama.2021.4801

Statin Intolerance

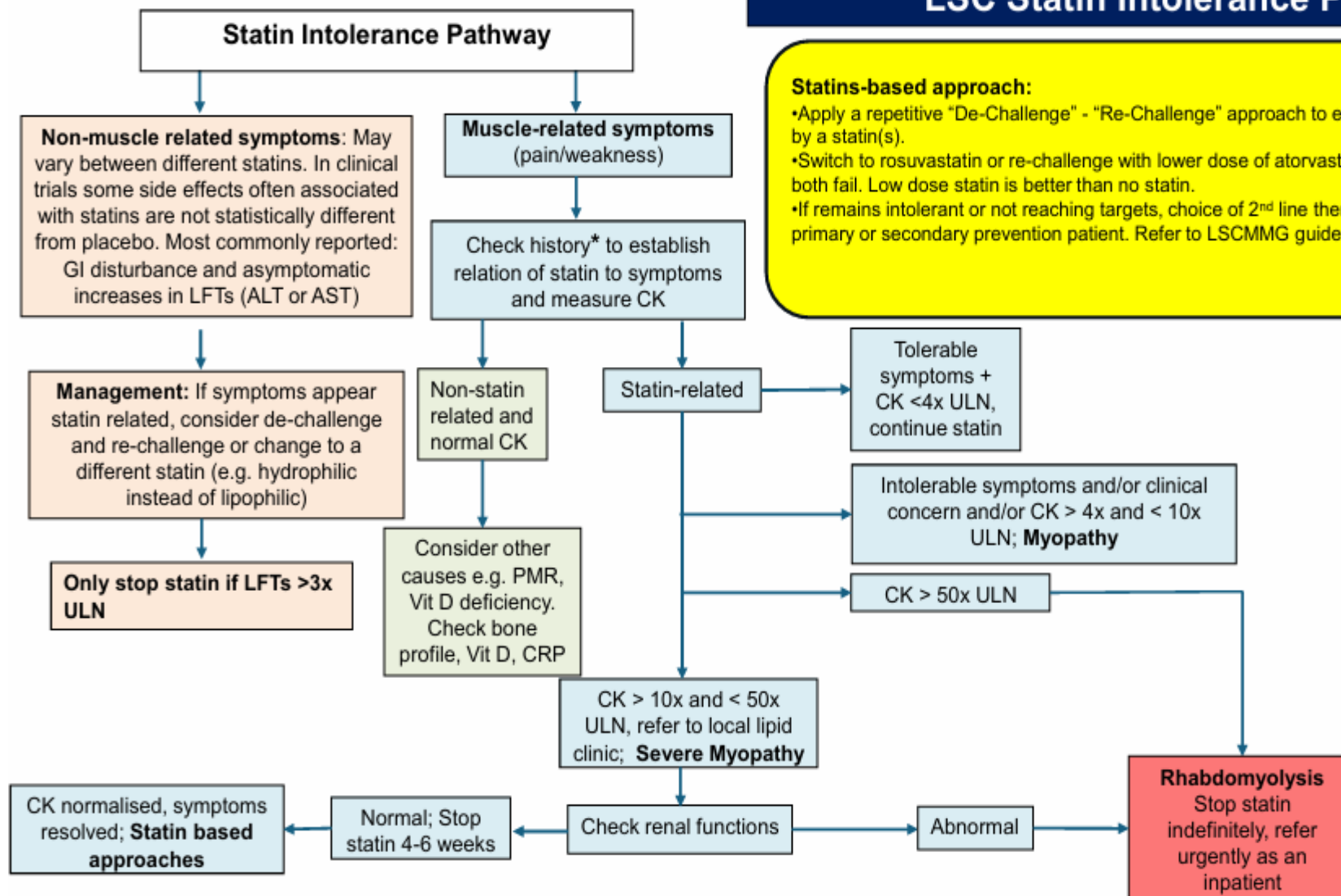
- Explain importance of statins and “question” claimed intolerance.
- Apply a repetitive “De-Challenge” - “Re-Challenge” approach to establish if symptoms are caused by a statin(s).
- **Switch to a different type of statin (hydrophilic vs lipophilic) or re-challenge with the same statin using a lower dose.**
- Patients who do not tolerate statins on a daily basis - alternate day or twice-weekly dosing is a good option.
- Once a new regime is tolerated, dose / frequency can be up-titrated slowly to try and achieve LDL-C / non-HDL-C



LSC Statin Intolerance Pathway

Statin-based approach:

- Apply a repetitive "De-Challenge" - "Re-Challenge" approach to establish if symptoms are caused by a statin(s).
- Switch to rosuvastatin or re-challenge with lower dose of atorvastatin. Use pravastatin low dose if both fail. Low dose statin is better than no statin.
- If remains intolerant or not reaching targets, choice of 2nd line therapy depends on whether primary or secondary prevention patient. Refer to LSCMMG guidelines.



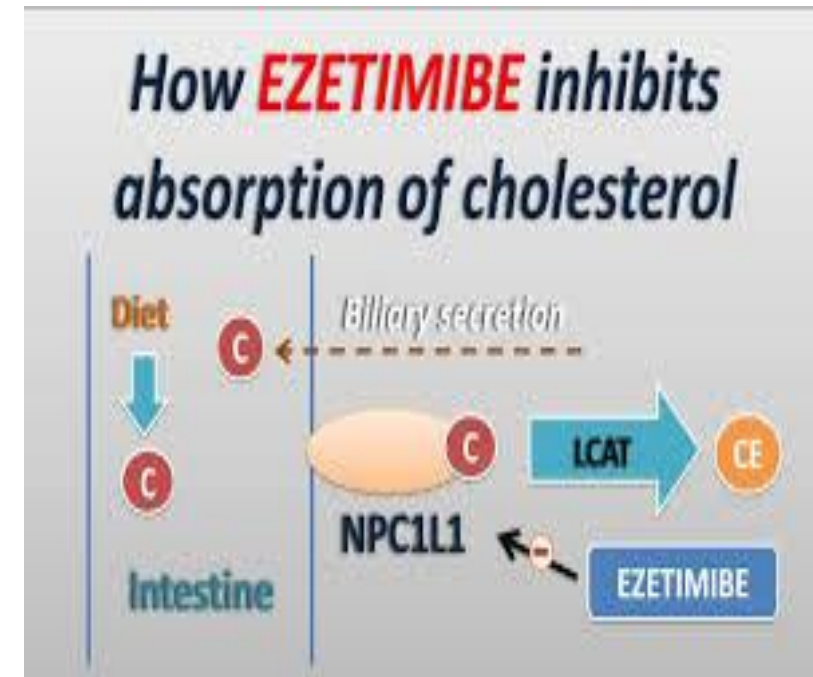
Statin Myth busting
LSC ICB intranet page.
Resources,
Cardiovascular:
Let's talk about statins
QA with summary V1

*Symmetrical pain and/or weakness in large proximal muscle groups, worsened by exercise

Ezetimibe

Prevents cholesterol from being absorbed in the small intestine.

(Inhibiting the Nieman Pick C1 like 1 protein (NPC1L1), a cholesterol transport protein, at the brush border of the small intestine. This prevents cholesterol-containing micelles from being taken up into enterocytes).

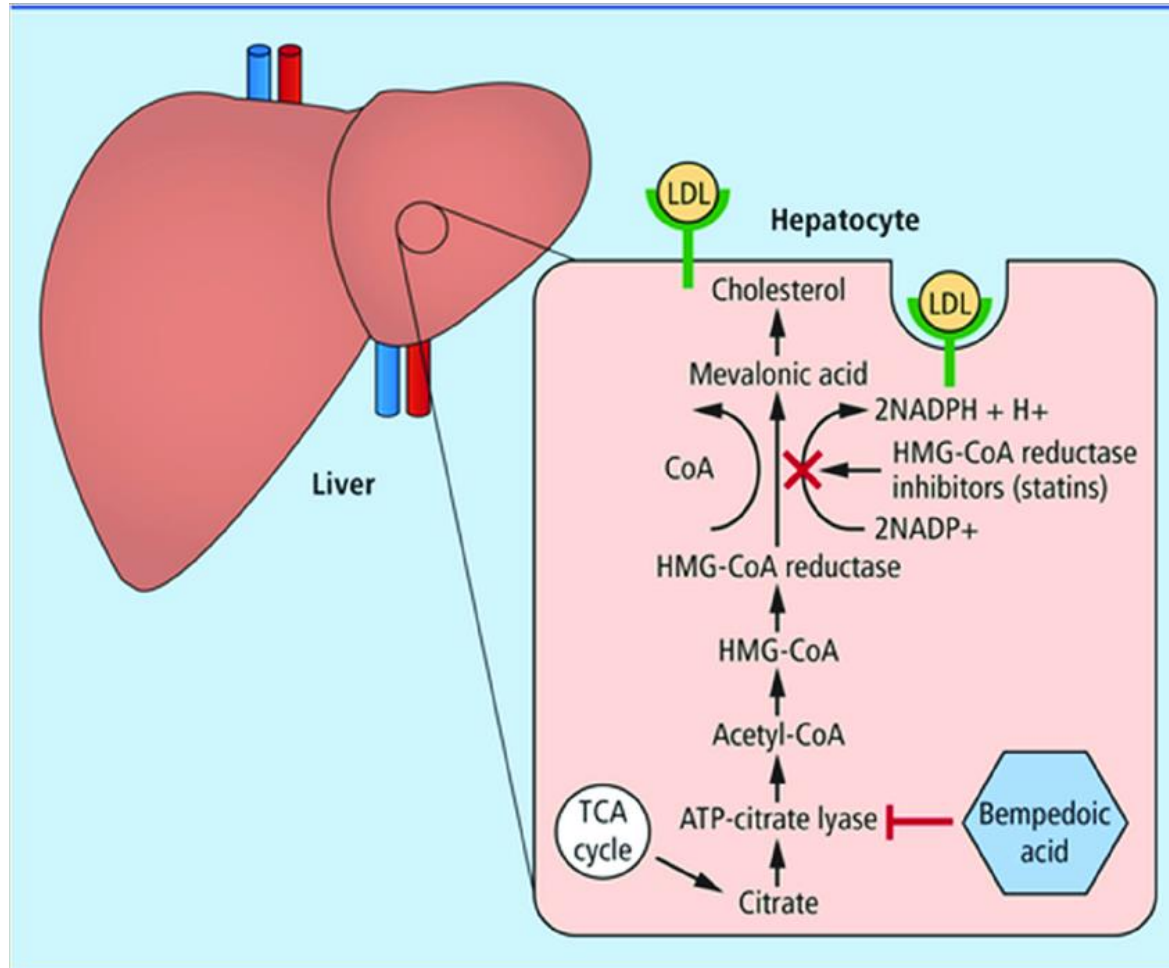


**Can reduce LDL-C by 15–22% when used alone,
or 21–27% when combined with a statin.**

Common Side Effects:-

- Abdominal pain.
- Diarrhoea.
- Lethargy, Weakness

Bempedoic Acid



**Bempedoic Acid 180mg
(Nilemdo)**

↓ **LDL-C 17-28%**

**Bempedoic Acid 180mg+
Ezetimibe 10mg
(Nustendi) ↓ LDL-C 38%**

Possible side effects:

Hyperuricaemia (3.8%)¹

Pain in extremity (3.1%)¹

Anaemia (2.5%)¹

PCSK9 Inhibitors

Monoclonal antibodies that inactivates PCSK9

Alirocumab (Praluent) and Evolocumab (Repatha)

Given by fortnightly s/c injections (75-150mg or 140mg)
→ Dramatic ↓LDL and ↓Non-HDL chol levels (up to 60%)
Acts synergistically with statins

Long term outcome data in Fourier & Odyssey Outcomes trials showed a significant reduction in CVD events ¹.



1. Rabih A.M et al. (2023) Reduction of Cardiovascular Risk Using Proprotein Convertase Subtilisin/Kexin Type 9 Inhibitors in Patients With Acute Coronary Syndrome: A Systematic Review, 5;15(2):e34648. doi: [10.7759/cureus.34648](https://doi.org/10.7759/cureus.34648) (Accessed Jan, 2025).

NICE guidance for PCSK9i (Alirocumab & Evolocumab)

	Without CVD	With CVD	
		High risk of CVD ¹	Very high risk of CVD ²
Primary non-familial hypercholesterolaemia or mixed dyslipidaemia	Not recommended at any LDL-C concentration	Recommended only if LDL-C concentration is persistently above 4.0 mmol/l	Recommended only if LDL-C concentration is persistently above 3.5 mmol/l
Primary heterozygous-familial hypercholesterolaemia	Recommended only if LDL-C concentration is persistently above 5.0 mmol/l	Recommended only if LDL-C concentration is persistently above 3.5 mmol/l	

¹High risk of cardiovascular disease is defined as a history of any of the following: acute coronary syndrome (such as myocardial infarction or unstable angina requiring hospitalisation), coronary or other arterial revascularisation procedures, chronic heart disease, ischaemic stroke, peripheral arterial disease.

²Very high risk of cardiovascular disease is defined as recurrent cardiovascular events or cardiovascular events in more than 1 vascular bed (that is, polyvascular disease).

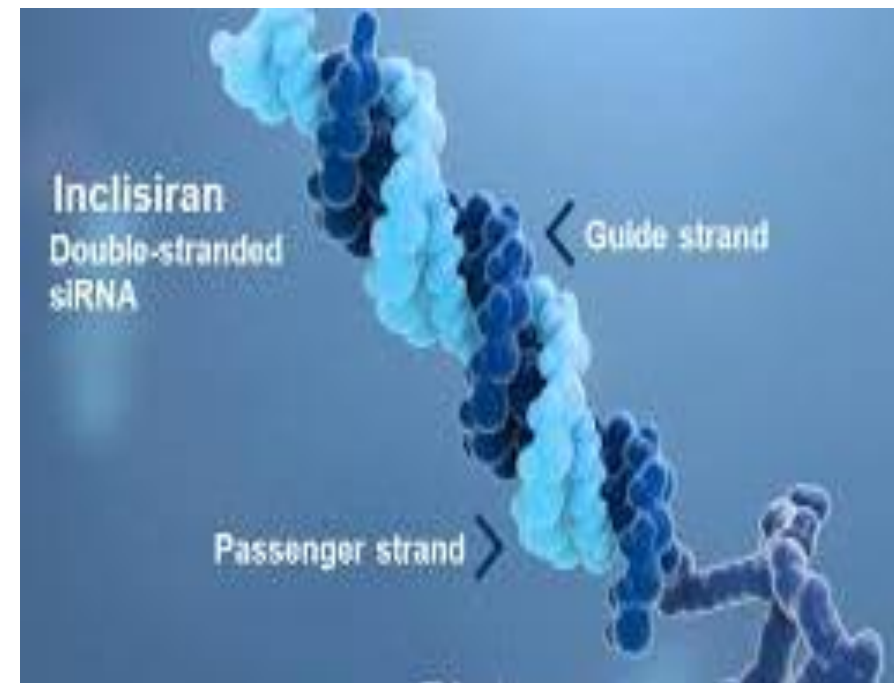
Abbreviations: CVD, cardiovascular disease; LDL-C, low-density lipoprotein cholesterol.

Inclisiran is a double stranded small interfering RNA (siRNA)

Increases the availability of LDLR's by targeting PCSK-9

PCSK-9 production is silenced by targeting it through RNA interference using siRNA (inclisiran).

Potential to lower LDL-C by 50%



Inclisiran NICE guidance (TA733)

Patients with a history of CVD (MI, PCI or other arterial revascularisation), unstable angina needing hospitalization, CHD, CVA or PAD who have LDL-C concentrations persistently ≥ 2.6 mmol/l, despite maximum tolerated lipid lowering therapy.

NICE, TA733, October 2021

Available to be given in Primary Care, no refrigeration required. Initial dose, 2nd dose at 3 months, then bi-annually. No adjustments for mild/moderate hepatic impairment, mild/moderate/severe renal impairment or end-stage renal disease, or elderly patients.

Vaskepa

Isopapent Ethyl 2 x Capsules twice d



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Epidemiological studies have shown that elevated levels of TGs are an independent marker of CV risk¹

International guidelines recognise that CV risk is increased with TGs over 1.7 mmol/L²

Highly-purified omega 3 fatty acid 2 x capsules twice daily

The mechanisms of action are likely multi-factorial and include

- Increased fibrous cap thickness/stability
- Anti-inflammatory and antioxidant effects
- Reduction of macrophage accumulation
- Improved endothelial function
- Improved lipoprotein profile with reduction of triglyceride-rich lipoproteins
- Antiplatelet effects³



NICE recommendations (TA805)

- ❖ Icosapent ethyl is recommended as an option for reducing CVD events in adults with
- ❖ Established cardiovascular disease (secondary prevention), defined as a history of any of the following:
 - ❖ MI, unstable angina (requiring hospitalisation), coronary or other arterial revascularisation procedures, CHD, ischaemic stroke, PAD and
 - ❖ Are taking Statin Therapy
 - ❖ Fasting triglycerides ≥ 1.7 mmol/L
 - ❖ LDL-C Levels > 1.04 mmol/L and ≤ 2.6 mmol/L

Side effects of Vaskepa

BLEEDING

(11.8% VAZKEPA vs 9.9% placebo)¹

Serious bleeding events were reported more frequently in subjects receiving icosapent ethyl than in those receiving placebo when administered in combination with concomitant antithrombotic medication (3.4% vs 2.6%), but occurred at the same rate (0.2%) in subjects not taking concomitant anticoagulant/antiplatelet medication.¹

ATRIAL FIBRILLATION OR FLUTTER

(5.8% VAZKEPA vs 4.5% placebo)¹

Atrial fibrillation or atrial flutter requiring hospitalisation for 24 hours or more occurred in 3% of subjects treated with VAZKEPA compared with 2% in subjects receiving placebo.

Atrial fibrillation and atrial flutter were reported more frequently in subjects with a previous history of atrial fibrillation or atrial flutter receiving VAZKEPA than in those receiving placebo (12.5% vs 6.3%).¹



FH & Genetics

Download our booklets

Download our free booklets for children and adults about cholesterol and living with cholesterol conditions.

[Download our booklets](#)

How healthy is your diet? Take our quiz

Take our quiz to find out how heart-healthy your diet is and get tips and recipes that are tailored to you.

[Get started](#)



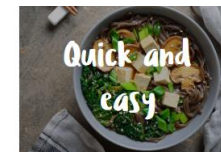
Cholesterol & The menopause Videos



Medication advice



Tasty ways to reduce cholesterol



Closing Remarks

- ❖ Understanding the importance of lipid lowering and shared decision making increases the adherence to prescribed therapies.
- ❖ Utilize combination therapies available in order to achieve targets – make use of pathways available if required.
- ❖ Assess level of lipid lowering required when prescribing LLT.
- ❖ Question statin intolerance, again using pathways if required.
- ❖ Consider FH in those patients with high cholesterol.
- ❖ Advice and Guidance is available – please make use of it.

Thank you for listening

Please complete our short online poll!



Next session: 20th October 2026

Web Lancashire and South Cumbria Training Hub – Supporting Quality Education and Development in Primary Care | **Facebook** @LSCTHUB

Question and Answer



Web Lancashire and South Cumbria Training Hub – Supporting Quality Education and Development in Primary Care | **Facebook** @LSCTHUB