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Find Assess Correct Treat Sustain Cardiovascular Disease

Learning to Love Lipids
Lunch and Learn July 12th 2023

Making the most of the Workforce - Optimising roles & relationships within Primary Care for Lipid management

Barry Todd – Pharmacist Practitioner, Village Green Surgery, Wallsend and Wallsend PCN Pharmacy Lead

Tracy Marshall - AHSN NENC Programme Manager and Pharmacy Technician

A healthcare system burden

Cardiovascular disease causes almost a quarter (24%) of all deaths in the UK,[1] placing a considerable financial burden on the NHS and wider society.[2]

Cardiovascular disease:

causes 1 death every 3 minutes in the UK[1]

costs the NHS in England about £7.4 billion/year[2]

The NHS Long Term Plan acknowledges **cardiovascular disease as a clinical priority** and the single biggest area where the NHS can save lives over the next 10 years.[3]

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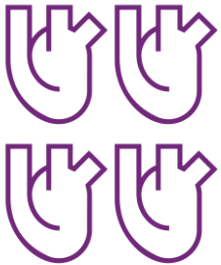
NHS – National Health Service

References: 1. BHF. https://www.bhf.org.uk/-/media/files/research/heart-statistics/bhf-cvd-statistics-uk-factsheet.pdf **[Accessed April 2022]. 2. Gov.uk.** https://publichealthmatters.blog.gov.uk/2019/02/14/health-matters-preventing-cardiovascular-disease/ **[Accessed May 2022]. 3. NHS.** https://www.england.nhs.uk/ourwork/clinical-policy/cvd/ **[Accessed May 2022].**

The additional problem of health inequality

Cardiovascular disease is one of the conditions most strongly associated with **health inequalities**, with many people still living with undetected, high-risk conditions, **such as high cholesterol.**[1,2]



People living in the most deprived areas in England are almost

4 times as likely to die prematurely from cardiovascular disease

than those in the least deprived[2]

With the number of people dying prematurely from cardiovascular disease on the rise for the first time in 50 years,[2] now is the time to address the risk this population faces.

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References: 1. NHS. https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf [Accessed April 2022]. 2. Heart UK. https://www.heartuk.org.uk/downloads/health-professionals/heart-uk-cvd-prevention-policy-paper---july-2019.pdf [Accessed May 2022].

Let’s discuss the CVD burden in NENC

Around **430,000** people live with cardiovascular disease in North East and North Cumbria,[1] a condition that:

Causes **690 deaths** each month[1]

Causes one death **every 65 minutes[1]**

Kills **1 in 4 people[1]**

ONLY IN NORTH EAST AND NORTH CUMBRIA

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Reference: 1. BHF. https://www.bhf.org.uk/what-we-do/our-research/heart-statistics/local-statistics **[Accessed May 2022].**

The vision

- Resetting the benchmark
- Keep it GP-lite
- Pharmacy driven
- Establishing a new norm
- Education
  - creating sustainability
  - empowering non-medical and medical clinician staff
  - making a difference and leaving a legacy

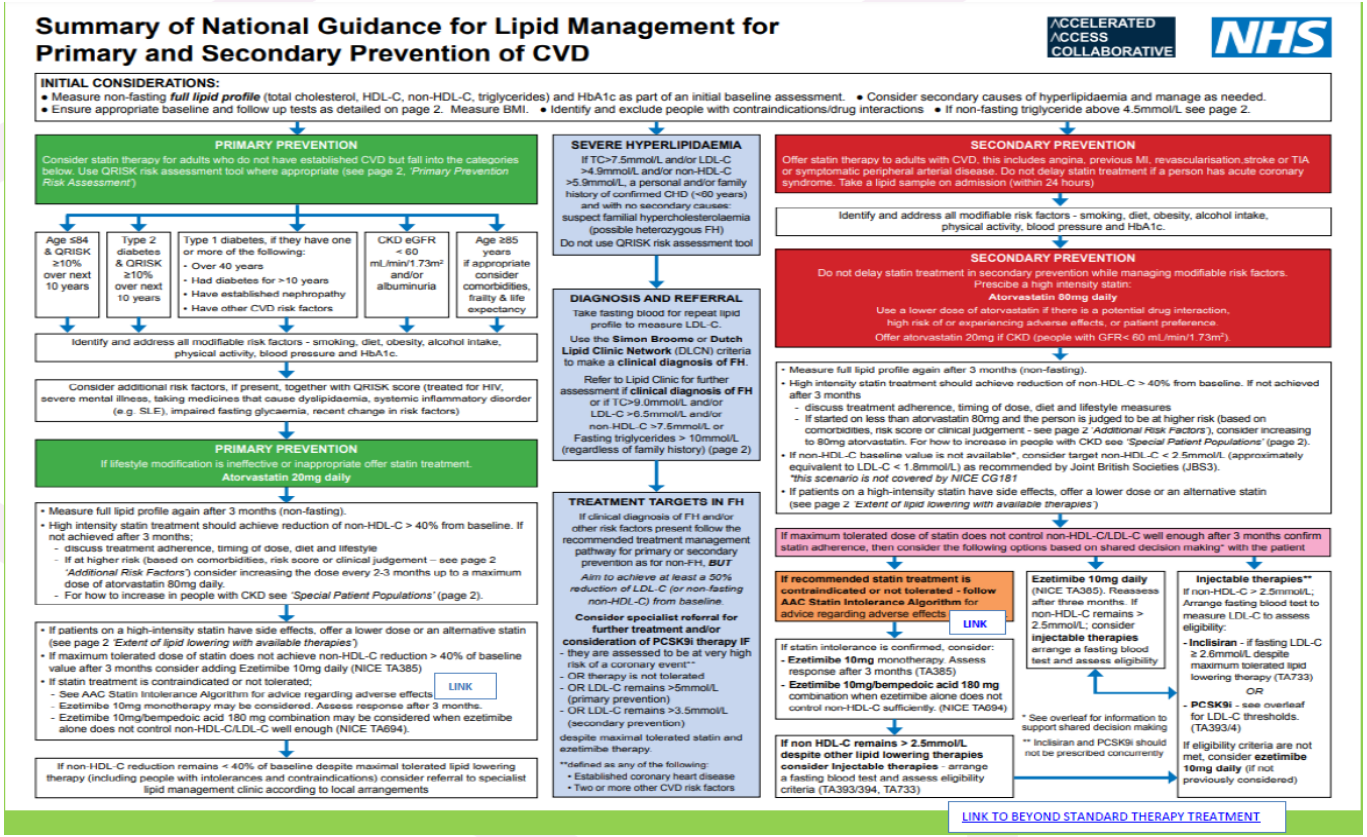
Making it happen - what we did

- Front loading approach
- Search, Review, Optimise.
- Life beyond atorvastatin 80mg
- NEELI guidelines

How can Pharmacy Technicians support lipid optimisation?

- Run the searches
- Stratify and prioritise the patient list
- Triage and gather patient information
- Document finding in patients notes
- Based on findings and NEELI guidelines make recommendations for lipid optimisation
- Task appropriate clinicians
- Review and follow-up on recommendations made

NEELI guidelines - Use North of Tyne APC guideline version



Summary of National Guidance for Lipid Management for Primary and Secondary Prevention of CVD

ACCELERATED ACCESS COLLABORATIVE

NHS

INITIAL CONSIDERATIONS:

- Measure non-fasting ***full lipid profile*** (total cholesterol, HDL-C, non-HDL-C, triglycerides) and HbA1c as part of an initial baseline assessment.
- Consider secondary causes of hyperlipidaemia and manage as needed.
- Ensure appropriate baseline and follow up tests as detailed on page 2. Measure BMI.
- Identify and exclude people with contraindications/drug interactions
- If non-fasting triglyceride above 4.5mmol/L see page 2.

PRIMARY PREVENTION

Consider statin therapy for adults who do not have established CVD but fall into the categories below. Use QRISK risk assessment tool where appropriate (see page 2, *'Primary Prevention Risk Assessment'*)

- Age ≤84 & QRISK ≥10% over next 10 years
- Type 2 diabetes & QRISK ≥10% over next 10 years
- Type 1 diabetes, if they have one or more of the following:
  - Over 40 years
  - Had diabetes for >10 years
  - Have established nephropathy
  - Have other CVD risk factors
- CKD eGFR < 60 mL/min/1.73m² and/or albuminuria
- Age ≥85 years if appropriate consider comorbidities, frailty & life expectancy

Identify and address all modifiable risk factors - smoking, diet, obesity, alcohol intake, physical activity, blood pressure and HbA1c.

Consider additional risk factors, if present, together with QRISK score (treated for HIV, severe mental illness, taking medicines that cause dyslipidaemia, systemic inflammatory disorder (e.g. SLE), impaired fasting glycaemia, recent change in risk factors)

PRIMARY PREVENTION

If lifestyle modification is ineffective or inappropriate offer statin treatment.
Atorvastatin 20mg daily

- Measure full lipid profile again after 3 months (non-fasting).
- High intensity statin treatment should achieve reduction of non-HDL-C > 40% from baseline. If not achieved after 3 months;
  - discuss treatment adherence, timing of dose, diet and lifestyle
  - If at higher risk (based on comorbidities, risk score or clinical judgement – see page 2 *'Additional Risk Factors'*) consider increasing the dose every 2-3 months up to a maximum dose of atorvastatin 80mg daily.
  - For how to increase in people with CKD see *'Special Patient Populations'* (page 2).
- If patients on a high-intensity statin have side effects, offer a lower dose or an alternative statin (see page 2 *'Extent of lipid lowering with available therapies'*)
- If maximum tolerated dose of statin does not achieve non-HDL-C reduction > 40% of baseline value after 3 months consider adding Ezetimibe 10mg daily (NICE TA385)
- If statin treatment is contraindicated or not tolerated;
  - See AAC Statin Intolerance Algorithm for advice regarding adverse effects LINK
  - Ezetimibe 10mg monotherapy may be considered. Assess response after 3 months.
  - Ezetimibe 10mg/bempedoic acid 180 mg combination may be considered when ezetimibe alone does not control non-HDL-C/LDL-C well enough (NICE TA694).

If non-HDL-C reduction remains < 40% of baseline despite maximal tolerated lipid lowering therapy (including people with intolerances and contraindications) consider referral to specialist lipid management clinic according to local arrangements

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

DIAGNOSIS AND REFERRAL

Take fasting blood for repeat lipid profile to measure LDL-C.

Use the **Simon Broome** or **Dutch Lipid Clinic Network** (DLCN) criteria to make a **clinical diagnosis of FH**.

Refer to Lipid Clinic for further assessment if **clinical diagnosis of FH** or if TC>9.0mmol/L and/or LDL-C >6.5mmol/L and/or non-HDL-C >7.5mmol/L or Fasting triglycerides > 10mmol/L (regardless of family history) (page 2)

TREATMENT TARGETS IN FH

If clinical diagnosis of FH and/or other risk factors present follow the recommended treatment management pathway for primary or secondary prevention as for non-FH, ***BUT***

Aim to achieve at least a 50% reduction of LDL-C (or non-fasting non-HDL-C) from baseline.

Consider specialist referral for further treatment and/or consideration of PCSK9i therapy IF

- they are assessed to be at very high risk of a coronary event**
- OR therapy is not tolerated
- OR LDL-C remains >5mmol/L (primary prevention)
- OR LDL-C remains >3.5mmol/L (secondary prevention)

despite maximal tolerated statin and ezetimibe therapy.

**defined as any of the following:
- Established coronary heart disease
- Two or more other CVD risk factors

SECONDARY PREVENTION

Offer statin therapy to adults with CVD, this includes angina, previous MI, revascularisation,stroke or TIA or symptomatic peripheral arterial disease. Do not delay statin treatment if a person has acute coronary syndrome. Take a lipid sample on admission (within 24 hours)

Identify and address all modifiable risk factors - smoking, diet, obesity, alcohol intake, physical activity, blood pressure and HbA1c.

SECONDARY PREVENTION

Do not delay statin treatment in secondary prevention while managing modifiable risk factors.
Prescibe a high intensity statin:
Atorvastatin 80mg daily
Use a lower dose of atorvastatin if there is a potential drug interaction, high risk of or experiencing adverse effects, or patient preference
Offer atorvastatin 20mg if CKD (people with GFR< 60 mL/min/1.73m²).

- Measure full lipid profile again after 3 months (non-fasting).
- High intensity statin treatment should achieve reduction of non-HDL-C > 40% from baseline. If not achieved after 3 months
  - discuss treatment adherence, timing of dose, diet and lifestyle measures
  - If started on less than atorvastatin 80mg and the person is judged to be at higher risk (based on comorbidities, risk score or clinical judgement - see page 2 *'Additional Risk Factors'*), consider increasing to 80mg atorvastatin. For how to increase in people with CKD see *'Special Patient Populations'* (page 2).
- If non-HDL-C baseline value is not available*, consider target non-HDL-C < 2.5mmol/L (approximately equivalent to LDL-C < 1.8mmol/L) as recommended by Joint British Societies (JBS3).
  **this scenario is not covered by NICE CG181*
- If patients on a high-intensity statin have side effects, offer a lower dose or an alternative statin (see page 2 *'Extent of lipid lowering with available therapies'*)

If maximum tolerated dose of statin does not control non-HDL-C/LDL-C well enough after 3 months confirm statin adherence, then consider the following options based on shared decision making* with the patient

If recommended statin treatment is contraindicated or not tolerated - follow AAC Statin Intolerance Algorithm for advice regarding adverse effects LINK

If statin intolerance is confirmed, consider:
- **Ezetimibe 10mg** monotherapy. Assess response after 3 months (TA385)
- **Ezetimibe 10mg/bempedoic acid 180 mg** combination when ezetimibe alone does not control non-HDL-C sufficiently. (NICE TA694)

If non HDL-C remains > 2.5mmol/L despite other lipid lowering therapies consider Injectable therapies - arrange a fasting blood test and assess eligibility criteria (TA393/394, TA733)

Ezetimibe 10mg daily (NICE TA385). Reassess after three months. If non-HDL-C remains > 2.5mmol/L, consider **injectable therapies** arrange a fasting blood test and assess eligibility

Injectable therapies**
If non-HDL-C > 2.5mmol/L, Arrange fasting blood test to measure LDL-C to assess eligibility:
- **Inclisiran** - if fasting LDL-C ≥ 2.6mmol/L despite maximum tolerated lipid lowering therapy (TA733)
  OR
- **PCSK9i** - see overleaf for LDL-C thresholds. (TA393/4)

If eligibility criteria are not met, consider **ezetimibe 10mg daily** (if not previously considered)

* See overleaf for information to support shared decision making

** Inclisiran and PCSK9i should not be prescribed concurrently

LINK TO BEYOND STANDARD THERAPY TREATMENT

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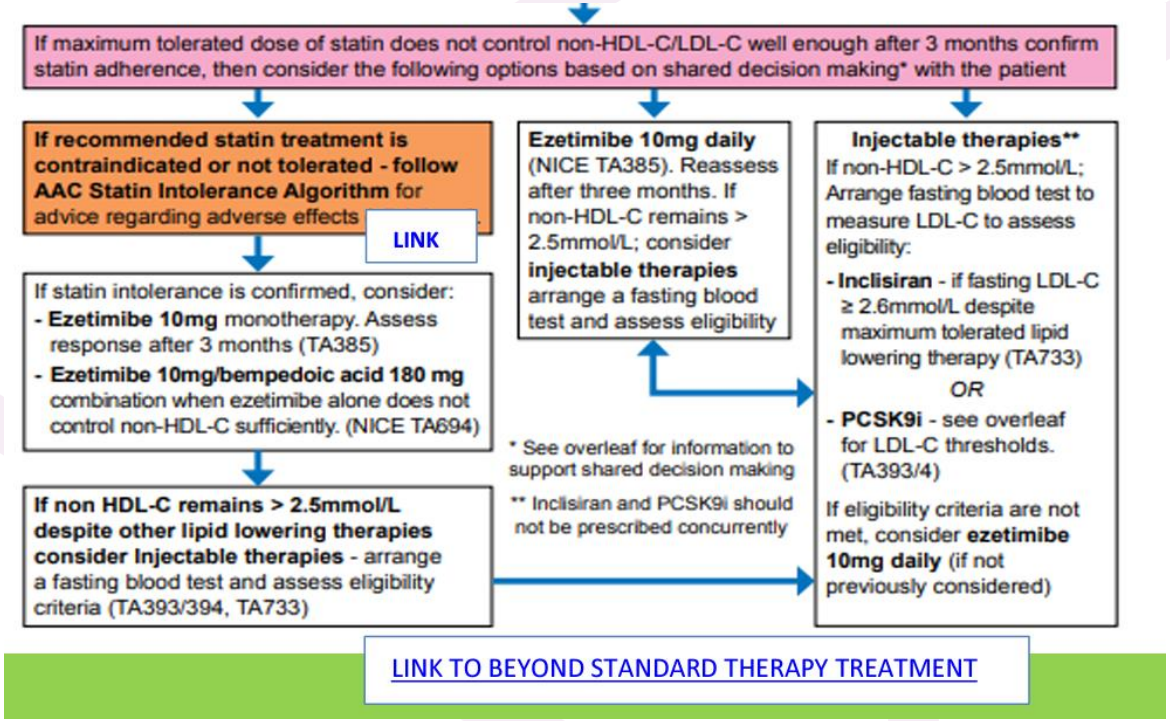
If maximum tolerated dose of statin does not control nonHDLc/LDLc:



Treatment options according to non-HDLc and LDLc

Non-HDLc	LDLc	Treatment
2.5-3.1		Try to optimise with statins OR ezetimibe+/-bempedoic acid
>3.1		Check fasting lipid profile and LDLc
	<2.6	Try to optimise with statins OR ezetimibe+/-bempedoic acid
	2.6-3.4	Inclisiran
	3.5-4	Very high risk* – PCSK9 inhibitors or not very high risk - inclisiran
	>4	PCSK9 inhibitor

*Very high risk of CVD i.e. recurrent cardiovascular events or cardiovascular events in more than 1 arterial vascular bed.

Wider workforce

- Administration and reception staff – book appointments, update records
- Nurses and HCA's – Take bloods, annual reviews, administer injectables
- Pharmacy team – support the work and provide sustainability
- GPs – be familiar with guidelines. Follow up more complex cases e.g. potential Familial Hypercholesterolaemia (FH) patients

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A practical case study utilising a Clinical Pharmacist, a Pharmacy Technician and other practice staff.

Barry Todd - Pharmacist Practitioner, Village Green Surgery, Wallsend and Wallsend PCN Pharmacy Lead

Tracy Marshall – Programme Manager AHSN NENC, and Pharmacy technician

Case study

61 year old male
Taking Atorvastatin 20mg for primary prevention, but then has a stroke
Total (serum) cholesterol 4.8
Non-HDL-c 3.1
Target non-HDL-c <2.5

What would you do?

a) Increase atorvastatin to 40mg
b) Increase atorvastatin to 80mg
c) Change statin
d) Add ezetimibe

What did you choose? Pros and cons

a) Increase atorvastatin to 40mg – would this achieve target nonHDLc?

Possible decrease of further 6% taking non-HDL-c to 2.9*

Other considerations – increased side effects

b) Increase atorvastatin to 80mg – would this achieve target nonHDLc?

Possible decrease of further 12% taking non-HDL-c to 2.7*

Other considerations – increased side effects

c) Change statin – what else is available?

When/Why would you switch?

d) Add ezetimibe – Ezetimibe when combined with any statin is likely to give greater reduction in non-HDL-c and LDL-c than doubling the dose of statin

*Atorvastatin **80**mg plus ezetimibe could provide a possible further* decrease of 18% taking non-HDLc to 2.55*

Other considerations - side effects, achieve target? Polypharmacy

* Further decrease compared to atorvastatin 20mg daily

Excerpt from NEELI guidelines

EXTENT OF LIPID LOWERING WITH AVAILABLE THERAPIES

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

- **Rosuvastatin** may be used as an alternative to atorvastatin if compatible with other drug therapy. Some people may need a lower starting dose (see BNF).
- Low/medium intensity statins should only be used if intolerance or drug interactions.
- **Ezetimibe** when combined with any statin is likely to give greater reduction in non-HDL-C or LDL-C than doubling the dose of the statin.
- **PCSK9i** (NICE TA393, TA394) alone or in combination with statins or ezetimibe produce an additional LDL-C reduction of approximately 50% (range 25-70%).
- **Bempedoic acid** when combined with ezetimibe (TA694) produces an additional LDL-C reduction of approximately 28% (range 22-33%) but no clinical outcome evidence is currently available.
- **Inclisiran** (TA733) alone or in combination with statins or ezetimibe produces an additional LDL-C reduction of approximately 50% (range 48-52%) but no clinical outcome evidence is currently available.

When do you review the patient after making changes?

a) 1 month
b) 3 months
c) 6 months
d) At annual review

- What other tests would you perform

Do we have any other options?

- Bempedoic acid 180mg with Ezetimibe 10mg (combined) tablet - if statin intolerant
- Inclisiran - if **LDL-c** is 2.6 or above
- PCSK9i injections – specialist item, started and monitored in secondary care

Thank you

Any questions?

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How to achieve QOF lipid targets

This half-day free event will help you gain more knowledge and confidence, hearing from those with lived experience, supporting you to achieve lipid QOF targets.

- 20th September
- 12:00 – 17:00
- The Durham Centre

Register now:

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