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Integrated Care

Optimising Cholesterol in Primary Care

Toolkit for Primary Care Health and Care Professionals in Greater Manchester

Last updated: September 2023

Part of Greater Manchester Integrated Care Partnership

For any comments, suggestions or feedback please visit feedback.gmcvd.com

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How to use this toolkit

Intended audience

This toolkit is for Primary Care health and care professionals in Greater Manchester

Intended aims & outcomes

Understand:

- Cholesterol results in primary care
- Primary prevention
- Secondary prevention
- Lipid lowering treatments
- Cholesterol QOF indicators
- QOF flow charts

Icons


Background information


'How to': Practical guidance


Further resources

Access each section that is most relevant to you.

- The **tabs** at the top of each page will indicate where you are within the toolkit.
- Use the **contents page** to take you to a specific page.

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Contents

Introduction:
What do I need to know about Cholesterol?

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The lower the cholesterol, the lower the risk of heart attacks and strokes

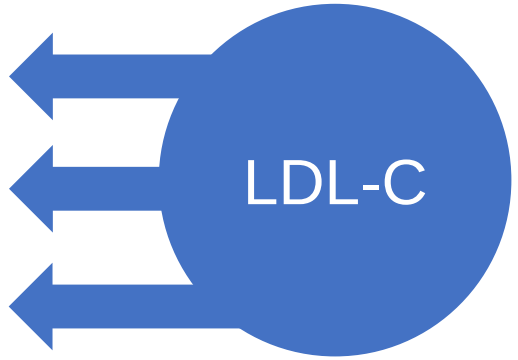
22%

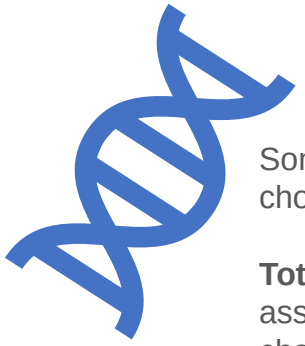
Each 1 mmol/l reduction in LDL-C is associated with a 22% **relative reduction in major cardiovascular events***

LDL-C is the **most abundant** atherogenic type of cholesterol

"**Non-HDL**" can be used to approximate LDL-C

LDL-C is required to determine **eligibility for injectables**





Some people may have a **genetic cause** of raised cholesterol (such as Familial Hypercholesteremia).

Total Cholesterol and Triglycerides are helpful for assessment of genetic and other causes of high cholesterol (e.g. triglycerides >20 mmol/L or TC>9mmol/L)

*Ference BA et al. Eur. Heart J 2017;38:2459-2572

Interpreting and dealing with cholesterol results in Primary Care: a step-by-step guide

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All cholesterol results

Look at Total Cholesterol

- Are there any clues as to secondary causes of high cholesterol, genetic causes or other worrying findings that require action?
- **If total cholesterol > 7.5mmol/L consider Familial Hypercholesteremia**. **Refer to** NICE FH CKS guideline

No concerns

Look at Triglycerides

If non-fasting triglycerides:

- **4.5 - 9.9 mmol/L:** Repeat fasting sample. CVD Risk may be underestimated by risk assessment tools. **Seek specialist advice if Non-HDL is >7.5 mmol/L**
- **10-20 mmol/L**: Repeat fasting sample after 5 days and within 2 weeks. Consider secondary causes such as alcohol, diabetes and anti-psychotics. **If remains above 10mmol/L seek specialist advice.**
- **>20mmol/L: Refer clinic for urgent specialist review. Consider alcohol, optimise diabetic control**

No concerns

Establish the aim of lipid optimisation

a. Primary Prevention:

Calculate QRISK → **See** Primary Prevention guidance

b. Secondary Prevention:

Is LDL-C greater than 1.8mmol/L or non-HDL-C greater than 2.5mmol/l?

- **Yes** - Optimise lipid lowering therapy until target reached → **See** Secondary Prevention guidance
- **No** – Lipid Lowering Therapy Optimised

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Primary Prevention

Primary Prevention means reducing risk of illness before it happens.

While individuals receiving primary prevention may have relatively low QRISK scores, the greater the length of and reduction in cholesterol the more benefit the person receives.

As Qrisk only looks at risk over a 10-year period, it significantly under-estimates risk in young people and over-estimates risk in older individuals.

Note, standard CVD risk scores including QRISK may underestimate risk in people who have additional risk because of underlying medical conditions or treatments. These groups include the following groups of people:

- severe obesity (BMI>40kg/m2) increases CVD risk
- treated for HIV
- serious mental health problems
- taking medicines that can cause dyslipidaemia such as antipsychotic medication, corticosteroids or immunosuppressant drugs
- autoimmune disorders such as SLE, and other systemic inflammatory disorders
- non-diabetic hyperglycaemia
- significant hypertriglyceridaemia (fasting triglycerides 4.5-9.9mmol/L)
- recent risk factor changes e.g. quit smoking, BP or lipid treatment

Consider socio-economic status as an additional factor contributing to CVD risk.

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.

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/1.73m^2 and/or albuminuria	Age ≥85 years if appropriate consider comorbidities, frailty & life expectancy

1.4.18 Do not rule out treatment with atorvastatin 20 mg for the primary prevention of CVD just because the person's 10-year QRISK3 score is less than 10% if they have an informed preference for taking a statin or there is concern that risk may be underestimated. **[2023]**

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Secondary Prevention Cholesterol Management

Across GM only 25% of patients who have had a CVD event are below this target. Cholesterol and therefore CVD risk can be reduced through a combination of lifestyle and medications and therefore future risk can be significantly reduced.

Medication is another tool in conjunction with amenable lifestyle changes (note lifestyle changes alone (depending on lifestyle) may realistically only reduce cholesterol **by a maximum of ~ 20%.**

Access the GMMMG-approved **Lipid Management Pathway for the Secondary Prevention of CVD. Click here.**

Read further information **purpose and development of the pathways. Click here.**

SECONDARY PREVENTION

Offer statin therapy (Atorvastatin 80mg) to adults with CVD, this includes CHD, angina, Acute Coronary Syndrome (MI or unstable angina), revascularisation, stroke or TIA, or symptomatic peripheral arterial disease. Do not delay statin treatment if a person has acute coronary syndrome.

Is LDL-C greater than 1.8mmol/L or non-HDL-C greater than 2.5mmol/l?

Yes - **Optimise lipid lowering therapy until target reached**

1. Optimise Statin
2. Ensure compliance / adherence
3. If still above target consider eligibility for **further lipid lowering therapy** depending on patient preference and LDL-C or referral to a lipidologist (as per pathway)

No – Lipid Lowering Therapy Optimised

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Lipid Lowering Treatments Overview

Access **information on case finding & lipid lowering treatments**. Click here.

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.

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Two new cholesterol QOF indicators

Cholesterol control and lipid management (CHOL)	Points	Thresholds
CHOL001: Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, Stroke/TIA or Chronic Kidney Disease register who are currently: • prescribed a statin • or where a statin is declined or clinically unsuitable, **another lipid-lowering therapy**	14	70-95%
CHOL002: Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, Stroke/TIA Register, who: • have a recording of **non-HDL cholesterol** in the **preceding 12 months** that **is lower than 2.5 mmol/L,** • or **LDL cholesterol** in the **preceding 12 months** that is **lower than 1.8 mmol/L**	16	20-35%

Patients needing additional lipid lowering treatments will require a **re-test by 31.12.23** to get a follow up test result

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QOF Exemption flow charts - overview

CHOL001: Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, Stroke/TIA or Chronic Kidney Disease Register who are currently prescribed a statin, or where a statin is declined or clinically unsuitable, another lipid-lowering therapy.

CHOL002: Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, or Stroke/TIA Register, who have a recording of non-HDL cholesterol in the preceding 12 months that is lower than 2.5 mmol/L, or where non-HDL cholesterol is not recorded a recording of LDL cholesterol in the preceding 12 months that is lower than 1.8 mmol/L.

CHOL001: Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, Stroke/TIA or Chronic Kidney Disease Register who are currently prescribed a statin, or where a statin is declined or clinically unsuitable, another lipid-lowering therapy.

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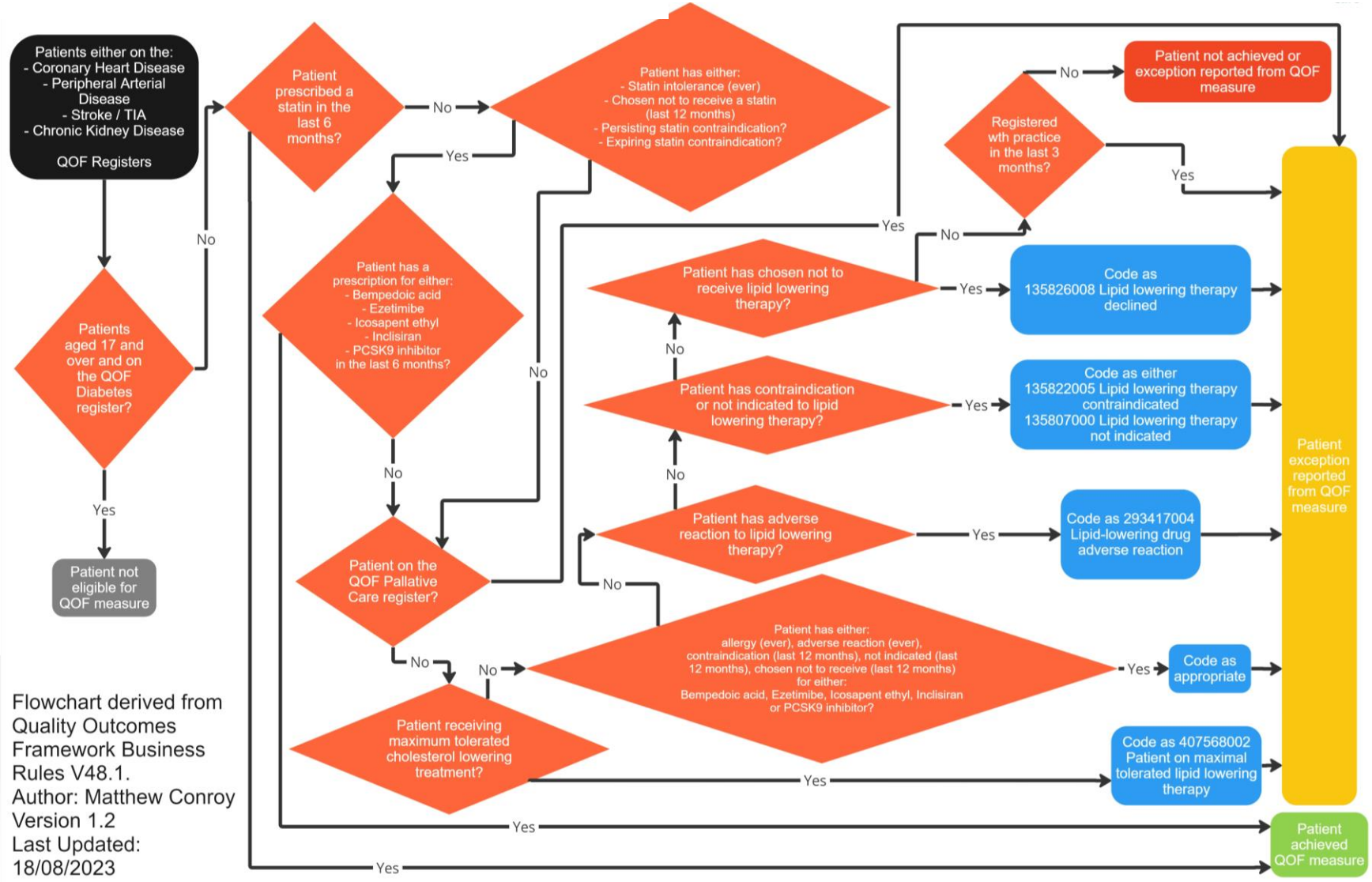

Flowchart derived from Quality Outcomes Framework Business Rules V48.1.
Author: Matthew Conroy
Version 1.2
Last Updated: 18/08/2023

CHOL002: Percentage of patients on the QOF Coronary Heart Disease, Peripheral Arterial Disease, or Stroke/TIA Register, who have a recording of non-HDL cholesterol in the preceding 12 months that is lower than 2.5 mmol/L, or where non-HDL cholesterol is not recorded a recording of LDL cholesterol in the preceding 12 months that is lower than 1.8 mmol/L.

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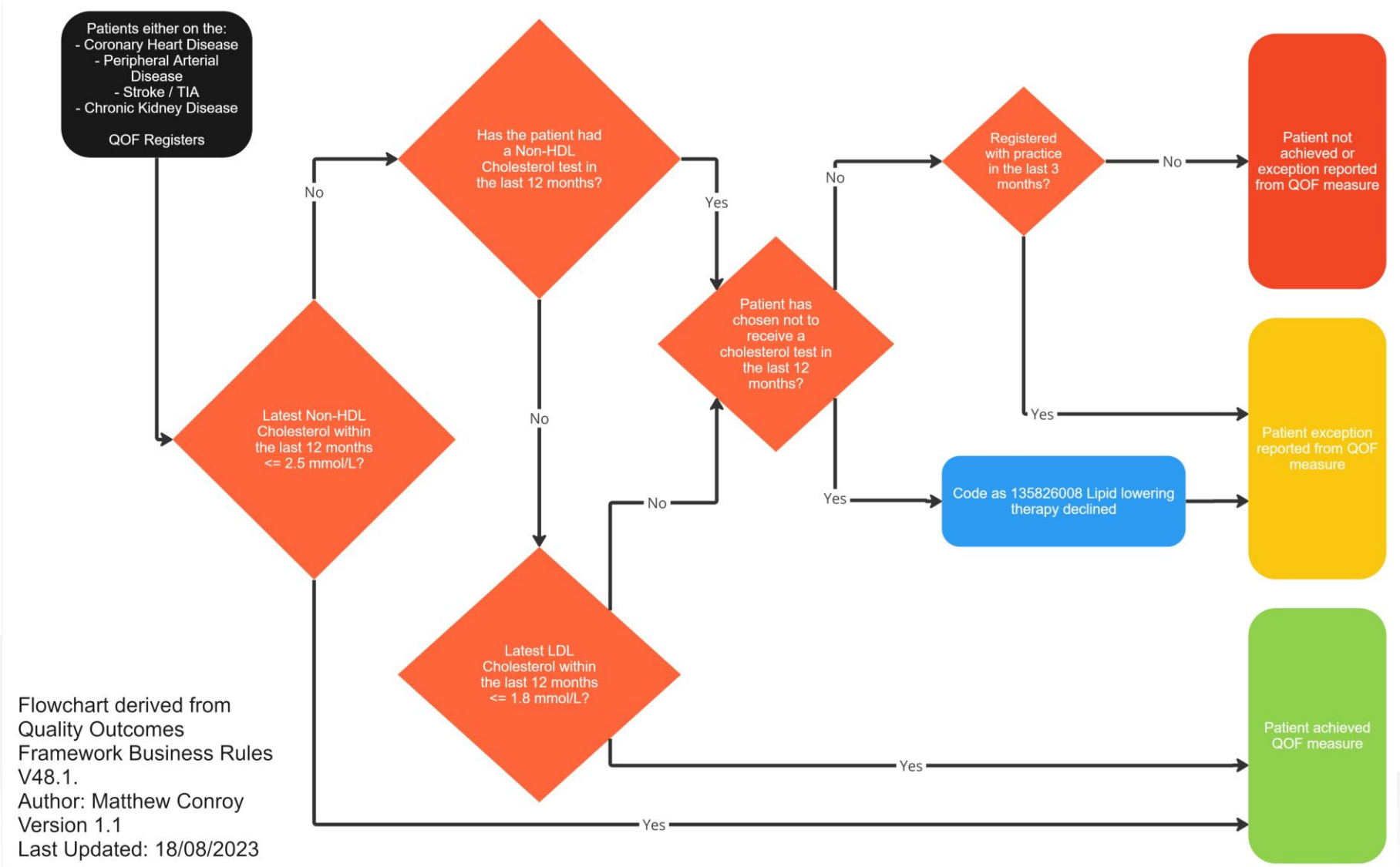

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Further Resources

Resources for health and care professionals in CVD Prevention and lipid management: Click here.

- Lipid Management Pathway for the Secondary Prevention of CVD
- Quality and Outcomes Framework guidance for 2023/24
- Lipid Management Pathway Education Webinars
- Case Finding and Searches Using TPP/SystmOne
- Case Finding and Searches Using EMIS
- Patient Information
- Inclisiran Prescribing, Ordering and Cost Information
- Primary Care Lipid Management Competency Framework

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Governance

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For any urgent issues or requests please contact:

- Catherine Cain
- Aseem Mishra

For feedback, issues or requests for more guidance please use feedback.gmcvd.com

We will be monitoring all feedback to help guide further iterations and inform future work.

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Acknowledgements

This toolkit has been made in collaboration with many individuals and organisations within the NHS GM ICS. In particular we would like to acknowledge the significant contributions of Health Innovation Manchester in pulling together this toolkit.

Dr Aseem Mishra,

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This toolkit is part of GM's effort to tackle CVD, health inequalities and improve the life of all who live and work in GM.