

Programme:	CVD Prevention Lipids
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Purpose of this document:	This document outlines the structure of TPP SystmOne searches created by the Data Quality Service to support lipid optimisation for secondary prevention of cardiovascular disease (CVD). This suite of searches includes total cholesterol values where there may be local lab coding issues for LDL / Non-HDL results. Please only use this set of searches if there are coding issues.

Document Status

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CVD Prevention - Lipids Searches

Searches for the identification of high-risk people requiring lipid optimisation for secondary prevention of CVD have been developed. The searches risk-stratify patients into five cohort groups depending on intervention required and includes eligibility for injectable therapies. This is part of the Greater Manchester Integrated Care Systems CVD prevention initiative.

Search Criteria

To support practices to identify patients who could be eligible for lipid-lowering therapies for secondary prevention of cardiovascular disease, the Data Quality Service has created a suite of searches, broken down into various cohorts. Reviewing each cohort will allow clinicians to determine whether patients require a review, or if they are eligible for injectable treatments to be administered to lower lipid levels.

The searches are named the following:

♦ [CVD Lipids | Lab Coding Issues | v10 | 08 | 2023](#)

Name
a CVDPL1a - Total Practice Population
b CVDPL1b - Aged >=18y
c CVDPL2a - Pts with a Cardiovascular Event Ever
d CVDPL2b - CVD Event EXC. Familial Hypercholesterolaemia
e CVDPL2c - CVD Event EXC. FH & Inclisiran
f CVDPL2d - CVD Event EXC. FH & Inc - Lipids in last 12m
g CVDPL2e - Lipids at Target in last 12m
h CVDPL2f - CVD Event EXC. FH & Inc & Lipids at Target
i COHORT 1 - Not on a Statin
j COHORT 2 - On Suboptimal Statin
k COHORT 3 - On Suboptimal Statin Dose
l COHORT 4 Sub - Statin Optimised - Lipids >Target
m COHORT 4 - Exc. Inclisiran Not Indicated in last 12m
n COHORT 4a - Eligible for Injectables
o COHORT 4b - Not Eligible for Injectables
p COHORT 5 - Remaining Patients
q Opted Out - Local Shared Electronic Record
r Opted Out - Summary Care Record
s CVDPL4a - CVD Event EXC. FH & Inc with Lipids >12m ago
t CVDPL5a - Aged >=18y Currently Prescribed Inclisiran
u CVDPL5b - Pts with CVD Event Prescribed Inclisiran in last 6m
v Lipids in last 12m inc. TC and Triglycerides

Indicator	Name	Description
a CVDPL1a	Total Practice Population	Looks at all active currently registered patients.
b CVDPL1b	Aged >=18y	Based on results of search CVDPL1a, this search includes patients who are aged above or equal to 18 years of age.
c CVDPL2a	Pts with a Cardiovascular Event Ever	Based on results of search CVDPL1b, this search includes patients who have ever had a cardiovascular event (Stent / CHD / PAD / Stroke). REVASCULAR_COD Cluster RefSet: 999029411000230108 CHD_COD Cluster RefSet: 999000771000230107 PAD_COD Cluster RefSet: 999005931000230101 STRK_COD Cluster RefSet: 999005531000230105
d CVDPL2b	CVD Event Exc. Familial Hypercholesterolemia	Based on results of search CVDPL2a, this search excludes patients who have a diagnosis of Familial Hypercholesterolemia as these patients should be reviewed via another pathway. FHYP_COD Cluster RefSet: 999006811000230109
e CVDPL2c	CVD Event Exc. FH & Inclisiran	Based on results of search CVDPL2b, this search excludes patients who already have Inclisiran recorded in their record in the last 6 months.

		 Inclisiran 284mg/1.5ml solution for injection pre-filled syringes  Leqvio 284mg/1.5ml solution for injection pre-filled syringes (Novartis Pharmaceut...
f I CVDPL2d	CVD Event I Exc. FH & Inclisiran I Lipids in last 12m	<p>Based on results of search CVDPL2c, this search includes patients where their last lipid results were recorded in the last 12 months.</p> <p>LDLCCHOL_COD Cluster RefSet: 999018771000230107 NONHDLCHOL_COD Cluster RefSet: 999017731000230106 TCHOL_COD Cluster RefSet: 999005451000230100</p>
g I CVDPL2e	Lipids at Target in last 12m	<p>Based on results of search CVDPL2d, this search includes patients whose lipids are at target in the last 12 months, so the practice is aware of this cohort.</p> <p>LDL Value <=1.8 Non-HDL Value <=2.5 Total Cholesterol Value <=3.5</p>
h I CVDPL2f	CVD Event I Exc. FH & Inclisiran I Lipids at Target	<p>Based on results of search CVDPL2d, this search excludes patients whose lipids are at target in the last 12 months to enable a final list of patients to be broken down into various cohorts.</p>
i I COHORT 1	Not on a Statin	<p>Based on results of search CVDPL2f this search excludes:</p> <ul style="list-style-type: none"> - Statins issued in the last 6 months - Maximum tolerated therapy - Expiring statin contraindications - Persisting statin contraindications <p>  Statins</p> <p>407568002 I Patient on maximal tolerated lipid lowering therapy 134391005 I Statin not indicated 315363002 I Statins contraindicated 413174003 I Statin not tolerated 16524331000119104 I H/O rhabdomyolysis due to statin 293432006 I Adverse reaction caused by statin 293433001 I Adverse reaction caused by simvastatin 293434007 I Adverse reaction caused by fluvastatin 293435008 I Adverse reaction caused by pravastatin 294970008 I Statin allergy 294971007 I Simvastatin allergy 294972000 I Fluvastatin allergy 294973005 I Pravastatin allergy 787206005 I Rhabdomyolysis due to statin</p>
j I COHORT 2	On Suboptimal Statin	<p>Based on results of search CVDPL2f this search excludes:</p> <ul style="list-style-type: none"> - Cohort 1 - Atorvastatin / Rosuvastatin issued in the last 6 months - Maximum tolerated therapy - Expiring statin contraindications - Persisting statin contraindications <p>and includes:</p> <ul style="list-style-type: none"> - Simvastatin / Fluvastatin / Pravastatin issued in the last 6 months
k I COHORT 3	On Suboptimal Statin Dose	<p>Based on results of search CVDPL2f this search excludes:</p> <ul style="list-style-type: none"> - Cohorts 1 & 2 - Maximum tolerated therapy - Expiring statin contraindications - Persisting statin contraindications - Atorvastatin (80mg) / Rosuvastatin (40mg) issued in the last 6 months
l I COHORT 4 Sub	Statin Optimised I Lipids >Target	<p>Based on results of search CVDPL2f this search excludes:</p> <ul style="list-style-type: none"> - Cohorts 1, 2 & 3
m I COHORT 4	Exc. Inclisiran Not Indicated in last 12m	<p>Based on results of search COHORT 4 Sub this search excludes:</p> <ul style="list-style-type: none"> - Patients with a code of 'Inclisiran Not Indicated' in the last 12 months as these patients have already been assessed for Inclisiran <p>1362041000000101 I Inclisiran not indicated</p>
n I COHORT 4a	Eligible for Injectables	<p>Based on results of search COHORT 4 this search includes</p> <ul style="list-style-type: none"> -Patients with a latest LDL value of >=2.6 or a latest Non-HDL value of >=3.4 or a latest Total Cholesterol value of >=4.4 so that injectables can be considered
o I COHORT 4b	Not Eligible for Injectables	<p>Based on results of search COHORT 4 this search includes</p>

		-Patients with a latest LDL value of <2.6 or a latest Non-HDL value of <3.4 or a latest Total Cholesterol value of <4.4 to identify those not eligible for injectables
p COHORT 5	Remaining Patients	Based on results of search CVDPL2f this search excludes: - Cohorts 1, 2, 3 & 4
q Opted Out	Local Shared Electronic Record	Based on results of search CVDPL2f this search includes: - Patients opted out of the Local Shared Electronic Record (for info purposes only should any searches be created on the GM Care Record) 416409005 Refused consent for upload to local shared electronic record
r Opted Out	Summary Care Record	Based on results of search CVDPL2f this search includes: - Patients opted out of the Summary Care Record (for info purposes only should any searches be created on the GM Care Record) 889091000000102 Dissent to share Summary Care Record 777441000000102 Express dissent for Summary Care Record dataset upload
s CVDPL4a	CVD Event Exc. FH & Inclisiran with Lipids >12m ago	Based on results of search CVDPL2c this search excludes: - Results of search CVDPL2d to identify patients where last lipids were recorded more than 12 months ago
t CVDPL5a	Aged >=18y Currently Prescribed Inclisiran	Based on results of search CVDPL1b this search includes: - Inclisiran issued in the last 6 months (all patients, not just CVD)
u CVDPL5b	CVD Event Prescribed Inclisiran in last 6m	Based on results of search CVDPL2a this search includes: - Inclisiran issued in the last 6 months for patients who have had a CVD event
v Lipids in last 12m	Inc. Total Cholesterol and Triglycerides	Based on results of search CVDPL2d this search includes: - Patients with a triglyceride result in last the 12 months TRIGLYC_COD Cluster RefSet: 999018411000230105

Practice Reports

The following searches require action:

- [CVDPL4a - CVD Event EXC. FH & Inc with Lipids >12m ago](#)
- [COHORT 1 - Not on a Statin](#)
- [COHORT 2 - On Suboptimal Statin](#)
- [COHORT 3 - On Suboptimal Statin Dose](#)
- [COHORT 4a - Eligible for Injectables](#)
- [COHORT 4b - Not Eligible for Injectables](#)
- [COHORT 5 - Remaining Patients](#)

Some patients identified into a cohort may be missing values for Non-HDLC or LDLC required to support their management and fulfil QOF requirements. These values can be calculated from the markers provided, Total Cholesterol, HDL-C and Triglycerides, using the same methodology (the Friedewald equation) as employed by most laboratories. This is as follows:

- Non-HDL-C = Total Cholesterol – HDL-C (all measurements in mmol/L)
- LDL-C = Non-HDL-C – (Triglycerides/2.2) (all measurements in mmol/L)

These calculators can also be found online: [LDL Calculated - MDCalc](#)

IMPORTANT TO NOTE: The Friedewald equation should not be used in high Triglycerides (>4.5mmol) and in this situation follow the advice as per national lipid guidance: [NHS Accelerated Access Collaborative » Summary of national guidance for lipid management \(england.nhs.uk\)](#)

Report Name	Action for Practice
CVDPL4a	<p>Bring patient in for lipids as the last one was recorded more than 12 months ago. Once the patient has had their blood test and the result is filed, they should then appear in one of the cohorts 1-5.</p> <p>Lipids test criteria:</p> <p>Calculated LDL: Use either a non-fasting or fasting sample, but fasting sample is recommended if levels are within 0.2mmol/l of treatment cut off levels.</p> <p>Direct LDL: Use a non-fasting sample only, 0.2mmol/l recommendation not applicable</p>
COHORT 1 - Not on a Statin	<p>Aim to re-initiate statin. Where clinically appropriate and acceptable to patient aim for a High intensity Statin (Atorvastatin/Rosuvastatin) at maximal dose (80mg/40mg respectively). If not possible confirm and code patient as statin intolerant or statin contraindicated.</p>
COHORT 2 - On Suboptimal Statin	<p>Aim to switch patient to a High intensity Statin (Atorvastatin/Rosuvastatin) at maximal dose (80mg/40mg respectively) where clinically appropriate and acceptable to patient. If not possible code patient as:</p> <p>407568002 Patient on maximal tolerated lipid lowering therapy and consider next step therapies.</p>
COHORT 3 - On Suboptimal Statin Dose	<p>Aim to up-titrate dose of current High intensity Statin (Atorvastatin/Rosuvastatin) to maximal dose (80mg/40mg respectively) where clinically appropriate and acceptable to patient. If not possible code patient as:</p> <p>407568002 Patient on maximal tolerated lipid lowering therapy and consider next step therapies.</p>
COHORT 4a Statins Maximised – Eligible for Injectables Based on results of search COHORT 4	<p>Check the patients where the LDL value is ≥ 2.6 / Non-HDL value is ≥ 3.4</p> <p>Review eligibility for:</p> <ul style="list-style-type: none"> ▪ Ezetimibe (LDL-C value equal or greater to 1.8 mmol/L) ▪ Inclisiran (LDL-C value equal or greater to 2.6 mmol/L) ▪ Referral for PCSK9-i as GM Lipid Flowchart (LDL-C $>3.5/4^*$) <p>*4 = High Risk CVD (single previous event) $^*3.5$ = Very High Risk CVD (recurrent events / multiple vascular beds)</p> <p>If patient confirmed statin intolerance, see NHS Statin Intolerance Pathway</p>
COHORT 4b - Statins Maximised – Not Eligible for Injectables Based on results of search COHORT 4	<p>Check the patients where the LDL value is <2.6 / Non-HDL value is <3.4</p> <p>Review eligibility for:</p> <ul style="list-style-type: none"> ▪ Ezetimibe (LDL-C value equal or greater to 1.8 mmol/L)
COHORT 5 - Remaining Patients	<p>This search has been created as a safety netting search should any patients appear. It is not expected that this search will produce any figures.</p> <p>If patients do appear in this list please email gmss.dataqualitygm@nhs.net</p>

Data Submission

If you are required to submit any data to your locality / PCN etc. run all searches, then right click on one of the searches, select **Table > Open as CSV > Save** to a location of your choice.

Queries

Should you have any queries, suggestions for improvement, or feel that patients are missing or are appearing in error, please email gmss.dataqualitygm@nhs.net so we can review the relevant indicator/s.