

Barnsley Severe Hyperlipidaemia Pathway

To be used in alongside the Barnsley Lipid Management Pathways for Primary and Secondary Prevention of CVD (Secondary Prevention Pathway in development)

SEVERE HYPERLIPIDAEMIA

If TC > 7.5 mmol/L and/or LDL-C > 4.9 mmol/L and/or non-HDL-C > 5.9 mmol/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

For referrals to Sheffield, see Sheffield FH referral criteria (page 2)*

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** contact medicine.information1@nhs.net (for attention of Lead Pharmacist, Medicines Information and Cardiology, BHNFT) for advice and guidance;

if TC > 9.0 mmol/L and/or

LDL-C > 6.5 mmol/L and/or

non-HDL-C > 7.5 mmol/L or

Fasting triglycerides > 10 mmol/L (regardless of family history)

(see page 4 Barnsley Lipid Management for Primary Prevention of CVD in adults)

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 (see relevant Barnsley Guideline), **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 (also see NICE eligibility criteria on page 2) IF

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

*STH referral pathway for adult patients with query familial hypercholesterolaemia (FH):
<http://nww.sth.nhs.uk/NHS/LaboratoryMedicine/Guidelines/LMGRP0032%20Query%20Familial%20Hypercholesterolaemia.pdf>

PCSK9i NICE eligibility criteria

NICE eligibility criteria for PCSK9i and fasting LDL-C thresholds are summarised below:

NICE TA393 Alirocumab NICE TA394 Evolocumab	Without CVD	With CVD	
		High risk ¹	Very High Risk ²
Primary heterozygous-FH	LDL-C > 5.0 mmol/L	LDL-C > 3.5 mmol/L	

¹ History of any of the following: ACS; coronary or other arterial revascularisation procedures; CHD, ischaemic stroke; PAD.

² Recurrent CV events or CV events in more than 1 vascular bed (that is, polyvascular disease).

PCSK9 inhibitors have a red classification on the Barnsley Formulary.

Abbreviations and Definitions

CHD: coronary heart disease

CVD: cardiovascular disease

FH: familial hypercholesterolaemia

LDL-C: low density lipoprotein cholesterol

non-HDL-C: non-high density lipoprotein cholesterol

PCSK9i: proprotein convertase subtilisin kexin 9 monoclonal antibody inhibitor

TC: total cholesterol

non-HDL-C = TC minus HDL-C

LDL-C = non-HDL-C minus (Fasting triglycerides^a/2.2)

^a valid only when fasting triglycerides are less than 4.5 mmol/L

Acknowledgements

This guidance has been adapted from the NHS Accelerated Access Collaborative Summary of National Guidance for Lipid Management for Primary and Secondary Prevention of CVD. [Summary-of-national-guidance-for-lipid-management-for-primary-and-secondary-prevention-of-cardiovascular-disease.pdf \(england.nhs.uk\)](#)

Development Process

This guidance was endorsed by the Barnsley Area Prescribing Committee on 13th July 2022.