Managing Difficult to treat /difficult to Optimise Lipid control

Role of secondary care

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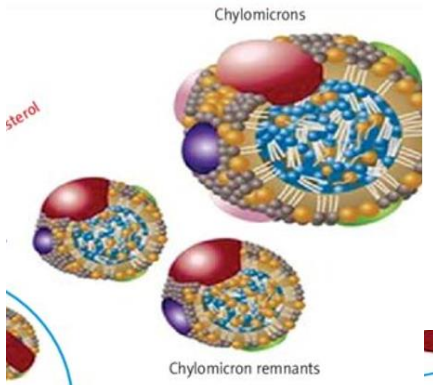
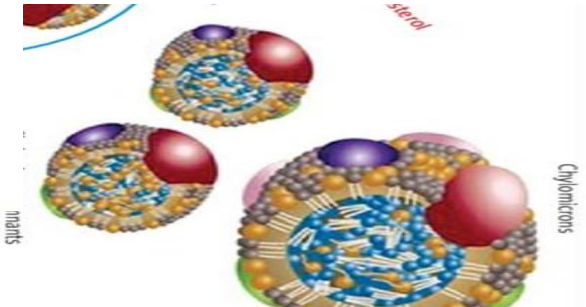
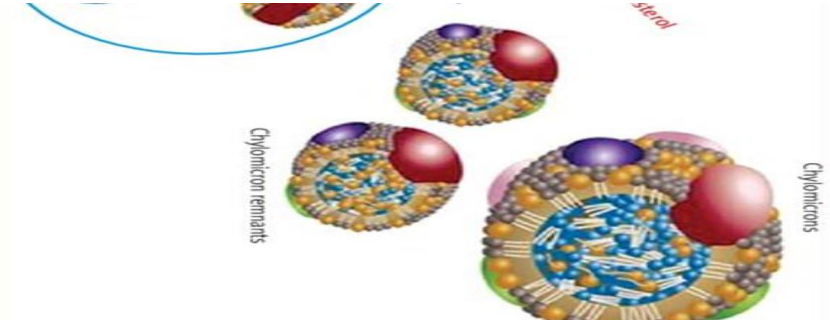






Declaration

Research contracts: AMGEN, Regeneron, Ionis and Novartis, Medicines Company

Consulting/presentation:

Sankyo, Novartis

Employment in industry: None

Stockholder of a healthcare company: None

Ownership of a healthcare company: None

FH

- **Prevalence**
- FH in the UK population is believed to be approximately 1 in 250
- About 220,000 people in the UK have FH, of whom **less than 8%** are currently identified.
- The 2019 NHS Long Term Plan has set the ambitious target of finding 25% of the predicted FH patients in England in the next 5 years.
- For the Pan-London area, this means that of the approximate 8 million people living within the M25 there are likely to be about 30,000 with monogenic FH
- Data collected suggests that currently only 1500 of these have been identified and are being treated by lipid specialists.
- A typical GP practice with 10,000 patients might have up to 40 patients with FH who have a significantly increased risk of premature heart disease and many of these have not been identified, or if identified are not being offered high intensity statin therapy.

Secondary care clinics

- Suspected Familial Hypercholesterolaemia
- Children with Lipid abnormalities
- High TG and increased risk for pancreatitis/recurrent pancreatitis
- Pregnancy and High TG
- Rare lipid abnormalities
- Patients with premature CVD and no traditional risk factors.
- When PCSK9i-monoclonals are indicated

FH service

Name clinician	Hospital	How many/week am clinics where FH patients seen	How many/week pm clinics where FH patients seen	How many Nurse PA dedicated to Cascade Testing	What computer system do you have for recording FH/CT data	What is your current time from referral to patient visit for DNA testing	
Jai Cegla	Hammersmith						
Devi Nair	Royal Free	1	1	2.5*	PASS	8m	
Devi Nair	North Middlesex		1	1*	PASS	6m	
Devi Nair	Barnet		1	1.5*	PASS	8m	
Devi Nair	Edgware	1		1.5*	PASS	8m	

Lipid Clinic Referral for Adult Patients>16y

Referring GP details:	Patient Details:
Special needs: ☐YES ☐NO	Details for adjustment required:
Interpreter required: ☐YES ☐NO	Language:

Please note, recent **2 consecutive lipid profile** that was taken **in the preceding 3** months should be used for the consideration of referral.
All relevant boxes for **Referral Criteria 1-5** should be marked to refer.

All secondary causes of hyperlipidemia should be addressed prior to referral.

Criteria 1: Hypercholesterolemia

Familial Hypercholesterolaemia suspected	**1. Total Cholesterol** > 7.5mmol/L and **LDL** > 4.9mmol/L	☐YES ☐NO
	2. Family history of ASCVD < 60 years old in 1st degree relative and/or < 50 years old in 2nd degree relative	☐YES ☐NO
	3. Family history of raised TC > 7.5mmol/L in adult 1st or 2nd degree relative or, > 6.7mmol/L in child, brother or sister aged younger than 16 years old.	☐YES ☐NO

If secondary causes excluded, and **YES to 1ST AND (2nd or 3rd)** criteria of Familial Hypercholesterolaemia please refer via e-Referral System.

If the criteria **NOT** met, follow UCLP FH pathway (page 9) and consider using Advice & Guidanc (A&G) portal on e-Referral.
https://wessexahsn.org.uk/img/projects/Lipids-and-FH-Framework_UCLPartners-LTCs-April-2021-v4.1.pdf

Criteria 2: Hypertriglyceridaemia

Please review NCL pathway for raised triglycerides (page 3) before a referral.
Please consider and address secondary causes.
https://www.ncl-mon.nhs.uk/wp-content/uploads/Guidelines/2_Guidance_for_the_management_of_hypertriglyceridaemia.pdf

Fasting triglycerides > 10mmol/L on 2 consecutive lipid profiles → use e-Referral System to refer	**Triglycerides > 20mmol/L → URGENT** referral Use e-referral system and email rf-tr.lipidclinic@nhs.net

If the criteria above are not met, but some advice is still required, please use A&G.

Criteria 3: Statin Intolerance

Follow Statin Intolerance Pathway & Muscle Symptoms Pathway by North Central London Lipid Management: Medicines Optimization pathways. (Page 7-9)
https://www.ncl-mon.nhs.uk/wp-content/uploads/2_Lipid_Management_Pathways.pdf

Intolerance to 3 or more statins ☐YES ☐NO	Statin	Dose (mg)

Refer if **one** of below **Severe adverse reaction** to one statin occurs.
1. Creatine Kinase > 10x ULN
2. ALT and/or AST > 10x ULN
3. Hx of Rhabdomyolysis

Criteria 4: Sub-optimal lipid control

LDL-cholesterol ≥ 3.5mmol/L on maximal lipid lowering therapy tolerated including Ezetimibe and/or Bempedoic acid for secondary or high-risk primary prevention	☐YES ☐NO If **YES**, use e-Referral System

Criteria 5: Rare lipid disorders

LDL-cholesterol < 0.5mmol/L *Not on any lipid lowering therapy*	☐YES	☐NO
HDL-cholesterol ≥ 3.5mmol/L	☐YES	☐NO
HDL-cholesterol < 0.5mmol/L	☐YES	☐NO
Lipoprotein (a) > 200nmol/L	☐YES	☐NO

If **YES** on any, please use e-Referral System to enable booking an appointment.

CVD Risk Factors

If any of the below information could be provided, it would be greatly appreciated.

Diabetes Mellitus	☐YES	Type:	☐NO
Smoking	☐YES		☐NO
Alcohol	☐YES	units:	☐NO
Medications			
Recent Blood pressure			
Dietary support given	☐YES		☐NO

Referral Lipid profile

Lipids (mmol/)	**Date**	**Date**
Total Cholesterol		
HDL-Cholesterol		
Triglycerides		
LDL-cholesterol		
Non-HDL cholesterol		

Characteristic physical findings of FH

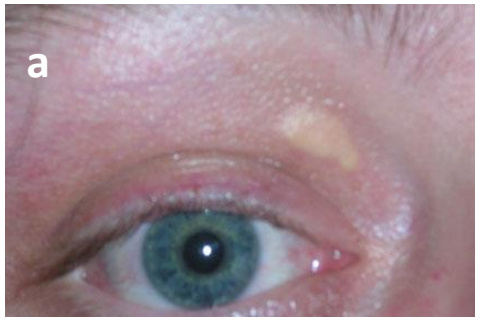
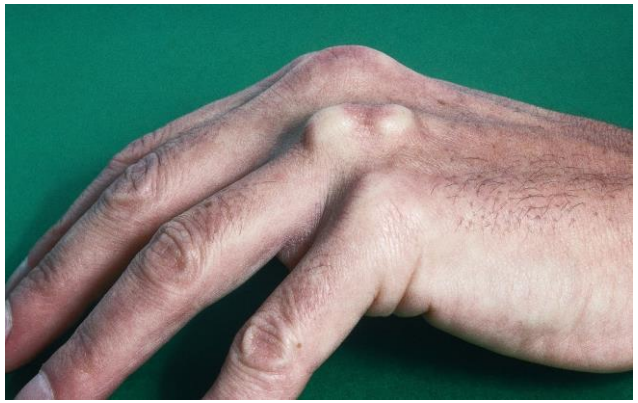


Image by Bobtheowl2 at the English Wikipedia, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=4040642



- These signs are found in some patients with FH
- Xanthelasmata (a) and arcus cornealis (b) are highly suggestive of FH in young patients <45 years old
- Absence of clinical signs does not exclude FH diagnosis

Tendinous or cutaneous xanthomas, xanthelasmata, or arcus cornealis[13]

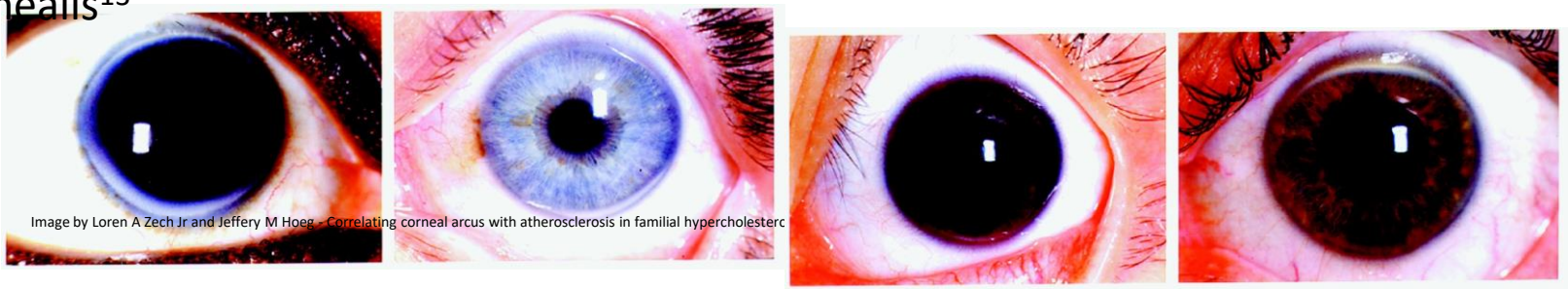
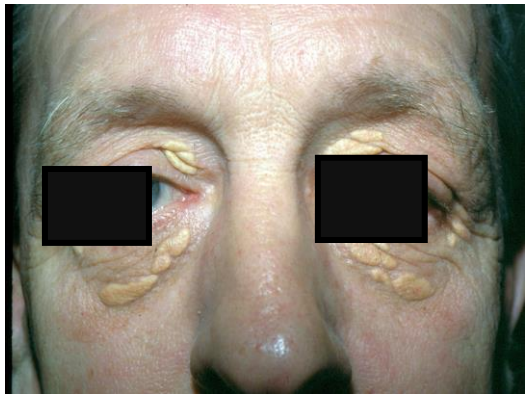
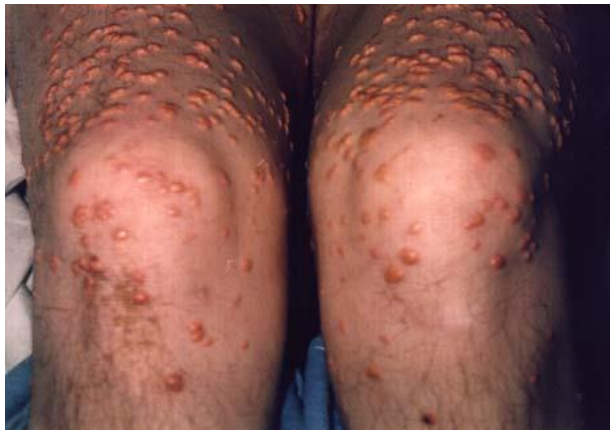
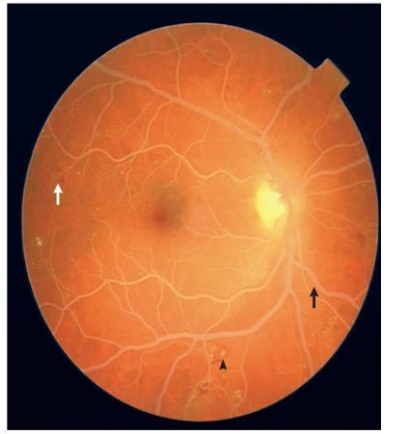
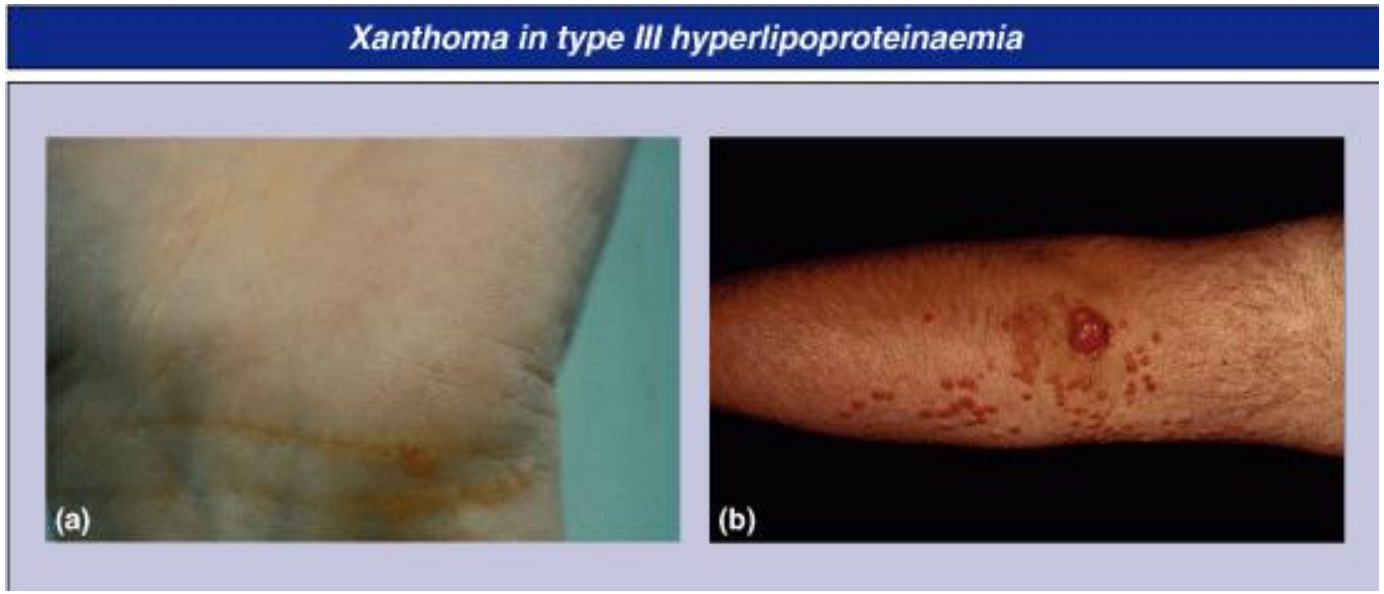


Image by Loren A Zech Jr and Jeffery M Hoeg - Correlating corneal arcus with atherosclerosis in familial hypercholesterc








Xanthoma in type III hyperlipoproteinaemia
(a)
(b)

Alternate options for Secondary care involvement

- Remote support for Lipid Optimisation projects in primary care for difficult to treat patients
- Remote /virtual notes only clinic with GP
- Remote/Virtual notes only clinics with Pharmacists/PA
- Enhanced service through Hospital Pharmacists