University College London Hospitals NHS Foundation Trust

LIPIDS

NCL Lipid Management

16th January 2024

DR CATHERINE LUNKEN

GP referral

Dear Doctor

This 54 year man has a cholesterol of 8.4. ?FH

Thank you for seeing him for genetic testing.

?Reasonable request

Yes

No

Further ..

- Total Cholesterol 8.4 Triglycerides 4.5
- HbA1c 74
- Remember previous cholesterols !!!!!

Case 1

- DS 35 year old man

TC 9.4 Trigs1.2 HDL1.11 LDL 7.71

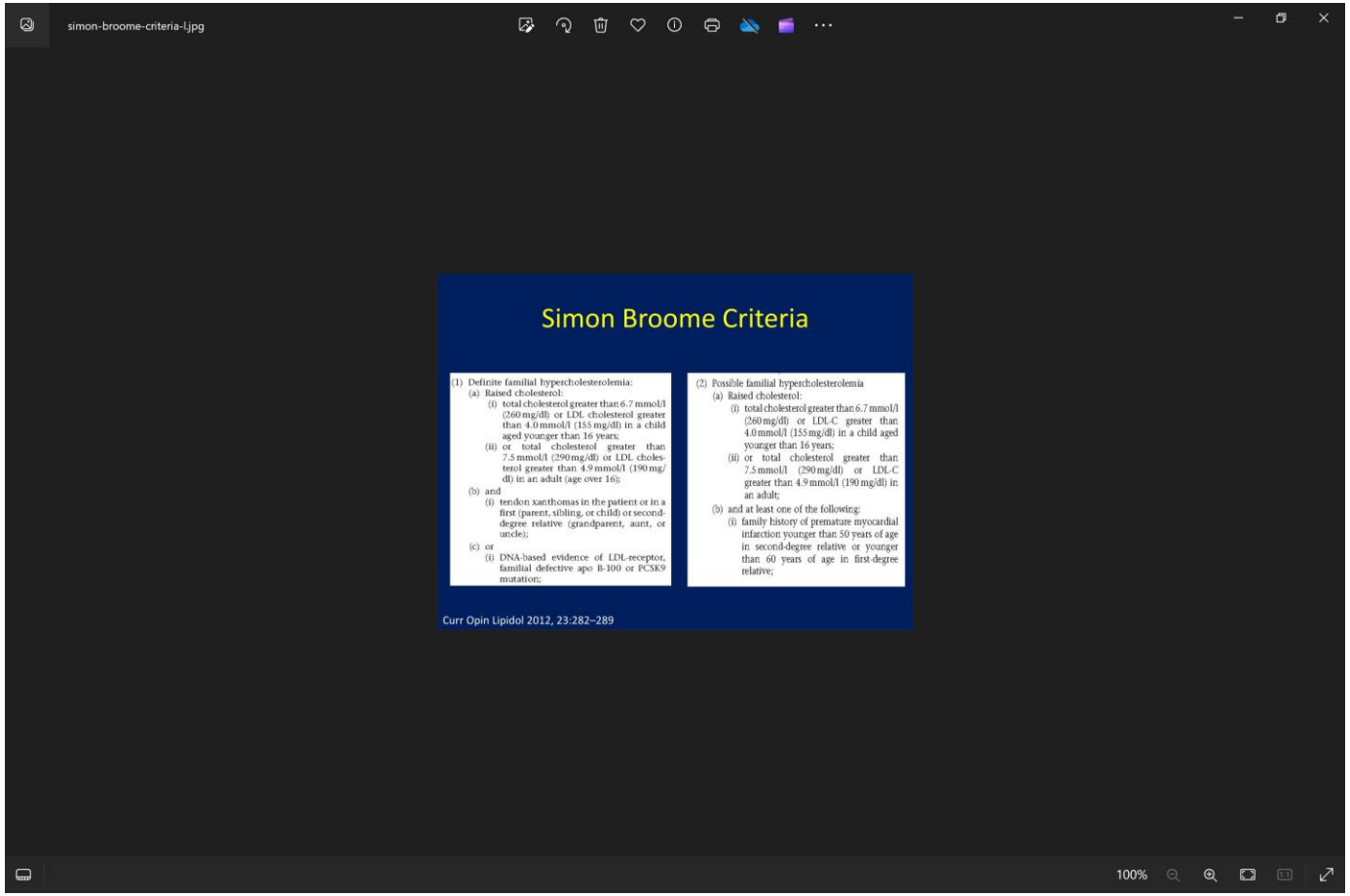
Secondary causes excluded

Father CABG age 50, his father died 60 MI

Simon Broome

Dutch Clinic Lipid score probable FH (11)

Simon Broome criteria



Dutch clinic lipid score

Biochemical Investigation	
LDL-C level ≥ 8.5 mmol/l	**8**
LDL-C level 6.5 – 8.4 mmol/L	**5**
LDL-C level 5.0 – 6.4 mmol/L	**3**
LDL-C level 4.0 – 4.9 mmol/L	**1**
Clinical Investigation	
Tendon Xanthomas	**6**
Arcus Cornealis (age < 45 yrs.)	**4**
Family Medical History	
1st degree relative with premature coronary artery disease – *OR* 1st degree relative with verified LDL-C above the 95th percentile	**1**
1st degree relative with tendon xanthomas or Arcus cornealis – *OR* Children with verified LDL-C above the 95th percentile	**2**
Patient Past Medical History	
Premature coronary artery disease	**2**
Premature cerebral or peripheral artery disease	**1**
Diagnosis	
Definite FH – points	**≥ 8**
Probable FH – points	**6 – 7**
Possible FH – points	**3 – 5**
Unlikely FH – points	**< 3**
Premature disease is defined as disease before the age of 55 years (Men) or 60 years (Women) Adapted from the 2016 ESC/EAS guidelines for the management of dyslipidaemia	

Genetic testing positive LDLR gene abnormality Heterozygous FH

Important to code…also for probable and possible FH (only 20-30% clinical cases FH will have mutation)

Started on 20mg Atorvastatin

TC 7.7 LDL 5.83

?next

Next step?

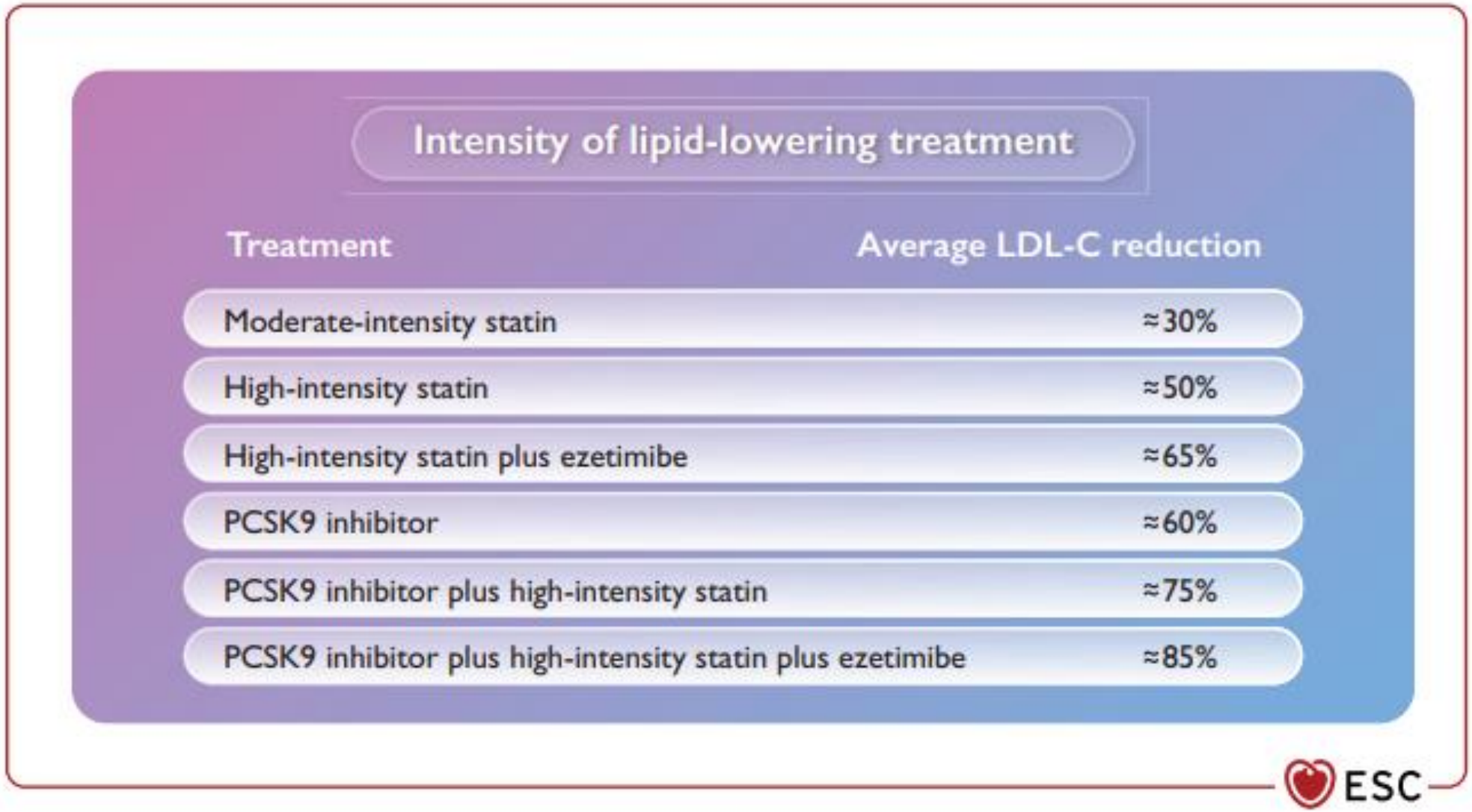
- 40mg Atorvastatin
- 80mg Atorvastatin
- 20mg Rosuvastatin
- 40mg Rosuvastatin
- Ezetimibe

Doubling statin dose decreases LDL by

- 20%
- 6%
- 50%
- 12%

Adding ezetimibe decreases LDL by

- 6%
- 20%
- 14%
- 2%



European Heart Journal (2021) 42, 3227-3337
doi:10.1093/eurheartj/ehab484

Next step

20 mg Rosuvastatin

10mg Ezetimibe

TC 6.5/LDL 4

Now what?

Next step?

- 40mg Rosuvastatin
- PCSK9i
- Inclisiran
- Carry on

So..

- CTCA and calcification score….deposits
- CIMT ..deposits
- (NICE PCSK9i FH needs to be LDL 5.0 if low risk
  High risk 3.5)

Now qualifies as high risk so can use PCSK9i

- LDL now ……1.4

CASE 2

EB 69 year old woman

Type 2 diabetes 2013

Diabetic clinic 2015 TC 6.2 and LDL 3.2 Hba1c 8.5%

2017 2018 intolerant simvastatin/atorvastatin

2020 Ezetimibe suggested ..headaches

2021 Pravastatin fibrate

2021 Lipid clinic TC 5.2/Trigs 2.4/LDL 3.1 HbA1C 6.7%

Options?

Bempedoic acid started (recommended to monitor uric acid - do baseline)

Nightmares

Rechallenged and taken at lunchtime

TC 3.7 and LDL 1.7

(Always try Rosuvastatin 5mg 2/week)

2023 Dizzy

Totally occluded (L) ICA and tight occlusion (R) ICA

TC 5.3/LDL 3

TC 5.0/LDL 2.6

Today!

She had her first dose of inclisiran as now qualifies

(Nice aimed at Inclisiran to be started in primary care.

Rather slow uptake to date.

Easy to give, does not need refrigeration.

At some practices being given to eligible patients at same time as Flu etc vaccination)

Non HDL v LDL

Secondary prevention use LDL

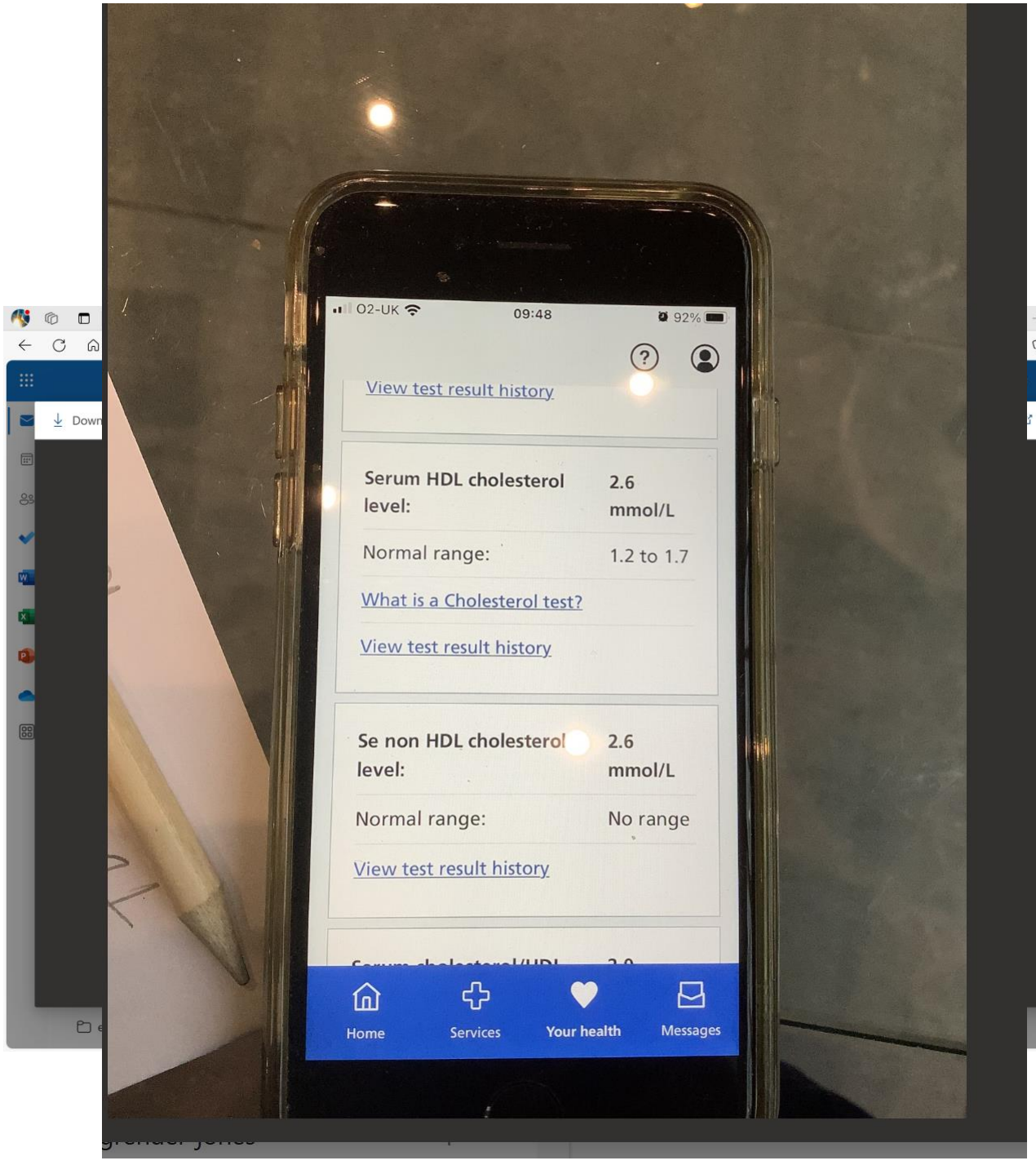
QOF New indicator CHOL002 both nonHDL and LDL

My friend Barbara …..65 year old woman

MI aged 60, exsmoker, hypertensive

80mg Atorvastatin

Barbara


O2-UK
09:48
92%
View test result history
Serum HDL cholesterol level:
2.6 mmol/L
Normal range:
1.2 to 1.7
What is a Cholesterol test?
View test result history
Se non HDL cholesterol level:
2.6 mmol/L
Normal range:
No range
View test result history
Home
Services
Your health
Messages

Take home messages

- Full fasting lipid profile
- Exclude secondary causes
- Previous lipid profiles? (If normal excludes genetic ..think weight,diet drugs, Covid, menopause)
- Add Ezetimibe early (20%reduction)
- Secondary prevention LDL<1.8 high risk <1.4 very high risk
- LDL 2.6 Bempedoic acid Inclisiran
- LDL 3.5 PCSK9i