

## Tackling Cholesterol Together

# Statin Hesitancy, health investment and benefits over time

Welcome to the eighth in a series of webinars as part of the national education programme Tackling Cholesterol Together.

Delivered in partnership by The NHS Accelerated Access Collaborative (AAC), The AHSN Network and the cholesterol charity, HEART UK

**The webinar will start at 1pm**

Jan 2022

All programme content, recordings and next webinar bookings will be housed in the HEART UK pages. Visit the site for the **new** e-Learning module on Statin Intolerance. <https://www.heartuk.org.uk/tackling-cholesterol-together/home>

Lowering Cholesterol!

Saving Lives.



# Housekeeping

The **AHSN** Network

ACCELERATED  
ACCESS  
COLLABORATIVE



- 
- **This meeting will be recorded** and will be made available in the HEART UK Tackling Cholesterol Together pages

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  - **There will be time** to stop and ask questions at the end of the webinar

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  - **Feel free to ask questions** or upvote questions in the chat function when it becomes available

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  - **Any questions that we are not able to cover in the Q&A** sections today will be addressed following the event

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  - **Any questions you provided** during registration will be covered during the session

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# Agenda

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	Topic	Presenter
<b>01</b>	Welcome	Sue Critchley
<b>02</b>	Statin hesitancy- a patient journey	Professor Terry McCormack
<b>03</b>	Statin Intolerance: Benefit vs Risk A balanced Evidence-Based Assessment	Professor Handrean Soran
<b>04</b>	Q&A. Close and next steps	Panel led by Dr Derek Connolly

01

**Look** at hesitancy and perceived statin intolerance from the perspective of a real patient story, their experiences and beliefs

02

Consider the **history** of emerging scientific evidence for LDL-C on patient outcomes

03

**Develop** a game plan for communicating the long-term benefits of lipid lowering therapy- and combination therapy.

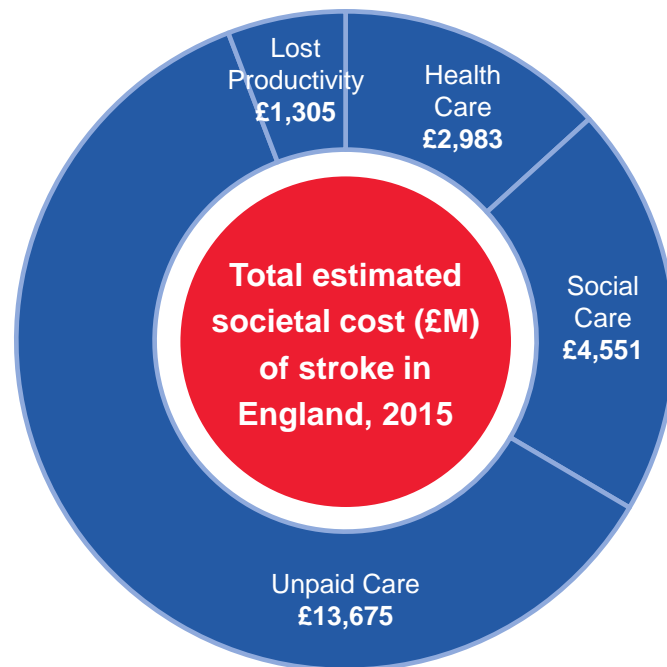
04

**Understand** what Influences LDL-C reduction, and what reduction will make a difference to outcomes.

**Make sense** from the literature to balance benefit/risk for patients.

- CVD kills 136,000 people a year
- CVD differentially targets ethnic minority communities
- CVD differentially targets deprived communities
- As well as death, CVD can cause significant disability
- CVD can be prevented

## STROKE IS THE LARGEST CAUSE OF ADULT DISABILITY



Source: Stroke Association. Current, future and avoidable costs of stroke

## CVD IS EXPENSIVE



Source: BHF analysis of European Heart Network (2017) European Cardiovascular Disease Statistics 2017



# CVD Burden Remains a Significant Unmet Need across all risk factors



## CVD in the UK<sup>1</sup>

- >7 million people have CVD
- CVD has an annual total healthcare cost of £9 billion
- CVD is one of the biggest causes of death despite the availability of medical interventions and strategies

**167,000** deaths/year from CVD; **44,000** are premature<sup>1</sup>

**>100,000** hospital admissions/year for an MI<sup>1</sup>  
**>100,000** strokes/year<sup>1</sup>

Up to **260,000** people in the UK have HeFH<sup>3</sup>

## The NHS Long-Term Plan:<sup>2</sup>

*Up to 10 year outlook for a variety of healthcare topics*

- Cholesterol was highlighted for the first time in a decade
- CV risk management is a combined approach: ABC (AF, Blood pressure, Cholesterol)

Improve early detection and treatment of CVD

*NHS Long-Term Plan<sup>2</sup>*

Prevent 150,000 heart attacks, strokes and dementia cases

*NHS Long-Term Plan<sup>2</sup>*

Expand access to genetic testing for identification of FH cases to at least 25% in 5 years

*NHS Long-Term Plan<sup>2</sup>*

• AF, atrial fibrillation; CV, cardiovascular; CVD, cardiovascular disease; FH, familial hypercholesterolaemia; HeFH, heterozygous familial hypercholesterolaemia; MI, myocardial infarction.

• 1. BHF. UK Factsheet, August 2019. Available at: <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>. Accessed November 2019;

2. NHS Long-Term Plan. Available at: <https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf>;

3. NICE Clinical Guidance [CG71]. Available at: <https://www.nice.org.uk/guidance/cg71/>. Accessed December 2019.

02

## Statin hesitancy- a patient journey

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**Professor Terry McCormack**

GP & Honorary Professor, Institute of Clinical and Applied Health  
Research, Hull York Medical School  
President, British and Irish Hypertension Society



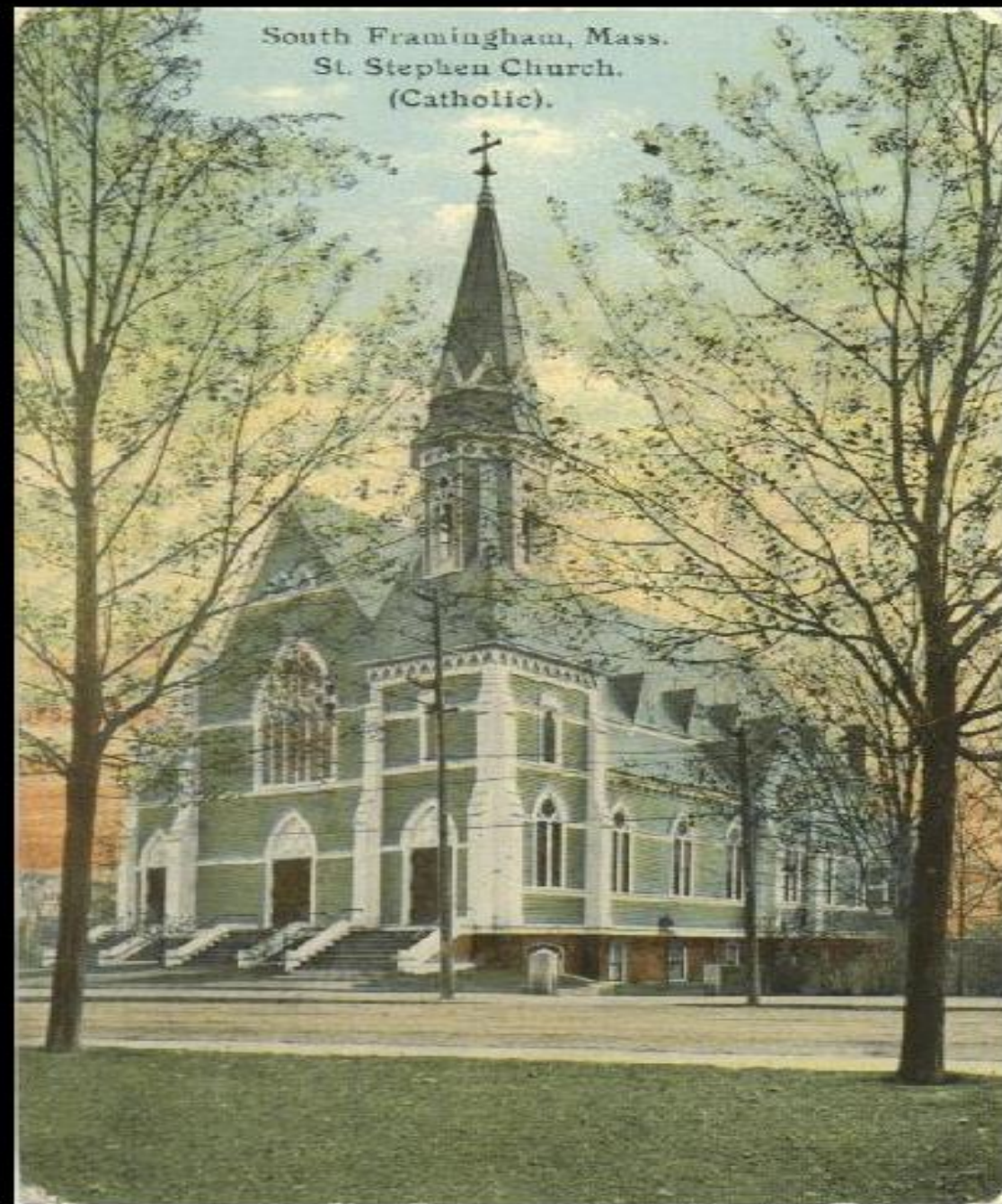
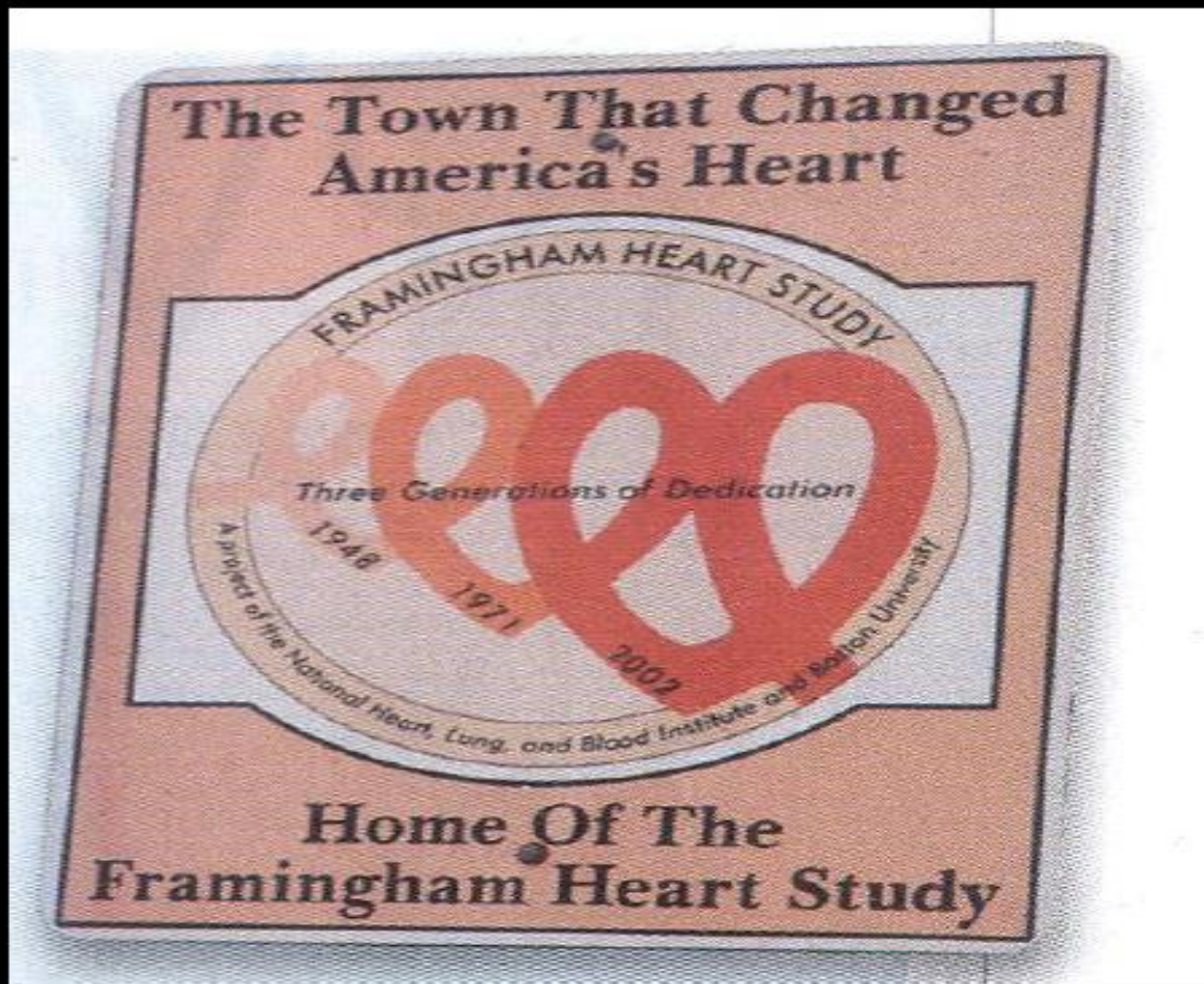
## Declarations of Interest

- Industry sponsorship for personal financial gain – AMGEN, Bayer, Boehringer Ingelheim, Daichii-Sankyo, Novartis
- Principal Investigator – Vesalius, AMGEN and CLEAROutcomes, Esperion
- SR is a real patient, who has given fully informed consent for his anonymised case history to be used



## Patient SR - Male - 1987 - Age 27

- ☉ Uncle died, myocardial infarction aged 50
- ☉ Father died, myocardial infarction aged 52
- ☉ Uncle died, myocardial infarction aged 56
- ☉ **All within one year of each other**
- ☉ Now male cousin, died myocardial infarction aged 39
- ☉ Mixed hyperlipidaemia. Type IIb. Cholesterol raised 7.2
- ☉ Refer to dietician





# Professor Michael Oliver (1925–2015)

- ◎ 1963 clofibrate (Atromid) fails to reduce events<sup>1,2</sup>
- ◎ 1988 Reducing Cholesterol Does Not Reduce Mortality<sup>3</sup>



1. Oliver MF. *Lancet* 1 1,323-26 1962

2. Oliver MF. Symposium on Atromid. *J Atherosclerosis Res* 3. 351: 1963

3. Oliver MF. *JACC Vol.12.No3*. September 1988

## Patient SR - Male - 1991 - Age 31

- ⦿ Fasting total cholesterol 8.9 mmol/l
- ⦿ Fasting triglyceride 1.7 mmol/l
- ⦿ Frederickson type IIb
- ⦿ “Refer to dietician and repeat in 3 months”
- ⦿ Rx Simvastatin 10mg
- ⦿ Fasting total cholesterol 6.1 mmol/l

# Scandinavian Simvastatin Survival Study 19 Nov 94

- ◎ 4S
- ◎ 4444 patients
- ◎ Merck Sharpe Dohme
- ◎ Terje R Pedersen, Oslo
- ◎ Secondary prevention
- ◎ 82% male
- ◎ 52% age > 60
- ◎ 622 vs. 431 CV events

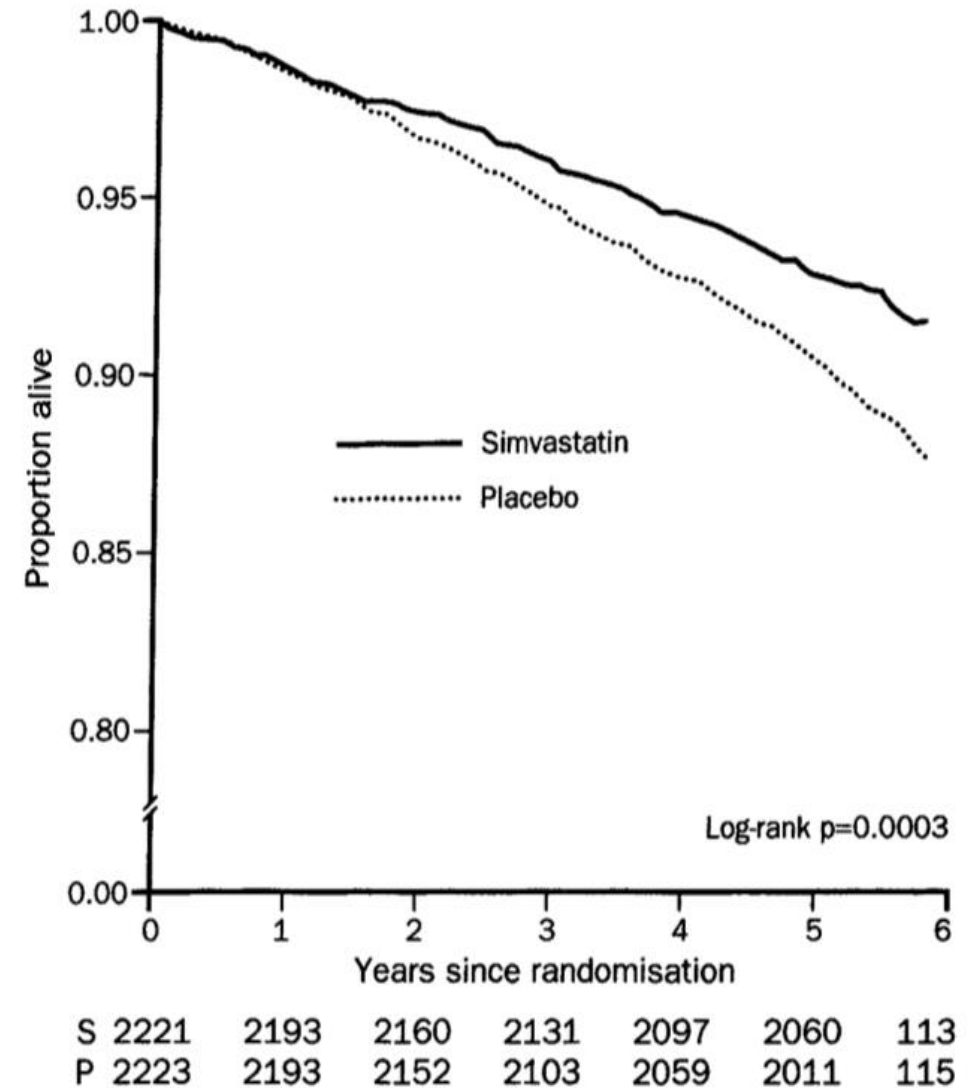


Figure 1: **Kaplan-Meier curves for all-cause mortality**  
 Number of patients at risk at the beginning of each year is shown below the horizontal axis.

Randomised trial of cholesterol lowering in 4444 patients with coronary heart disease: the Scandinavian Simvastatin Survival Study (4S). Scandinavian Simvastatin Survival Study Group, *The Lancet*, Volume 344, Issue 8934, 1383 - 1389

# Professor Michael Oliver (1925–2015)



- ◎ 1963 clofibrate (Atromid) fails to reduce events<sup>1,2</sup>
- ◎ 1988 Reducing Cholesterol Does Not Reduce Mortality<sup>3</sup>
- ◎ 1996 “Lower patients’ cholesterol now<sup>4</sup>”.
- ◎ “When the facts change, I change my mind”

1. Oliver MF. *Lancet* 1 1,323-26 1962

2. Oliver MF. Symposium on Atromid. *J Atherosclerosis Res* 3. 351: 1963

3. Oliver MF. *JACC Vol. 12.No3*. September 1988

4. Stockholm 1996

## Patient SR - Male - 1994 - Age 34

- ⦿ Pain in chest, arms, legs
- ⦿ Creatinine kinase 114 iu/l, TC 6.4 mmol/l
- ⦿ **Stops simvastatin and symptoms cease**
- ⦿ Fasting total cholesterol 9.3 mmol/l, triglyceride 1.3 mmol/l
- ⦿ HDL 1.2 mmol/l, LDL 7.5 mmol/l
- ⦿ Dutch Lipid Clinical Network Score = 6 = Probable FH
- ⦿ Rx bezafibrate 400mg m/r with or after evening meal
- ⦿ Rx ezetimibe 10mg **in 2004**

## Patient SR - Male - Age 61 - Taxi Driver - Problems

- ⦿ Osteoarthritis acromioclavicular joint, bilateral 2020
- ⦿ Non-diabetic hyperglycaemia 2018
- ⦿ Non-alcoholic fatty liver 2018
- ⦿ Adverse reaction to lisinopril 2010 – ACE cough
- ⦿ Hypertension 2010
- ⦿ Nissan Fundoplication 1997
- ⦿ Mixed Hyperlipidaemia 1987



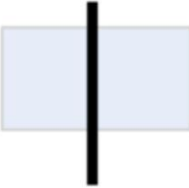

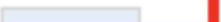
## Patient SR - Male - Age 61 - Taxi Driver - Medications

- ⦿ Amlodipine 5mg od
- ⦿ Bezafibrate 400mg m/r with or after evening meal
- ⦿ Candesartan 32mg od
- ⦿ Cetirizine 10mg od
- ⦿ Co-codamol 30/500 two tablets qds prn
- ⦿ Ezetimibe 10mg od

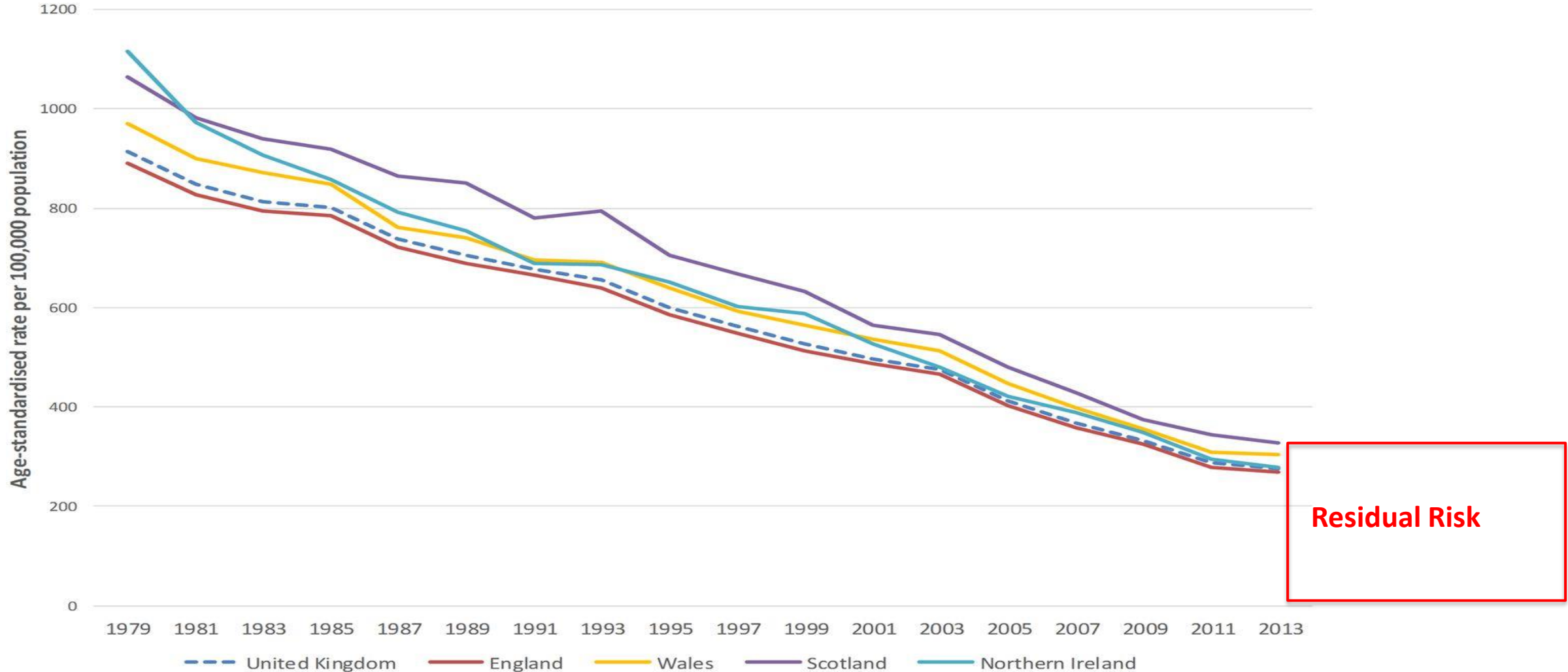
# Patient SR - Male - Age 61 - Taxi Driver

## Most recent results

View -> My Record (No shared data.)

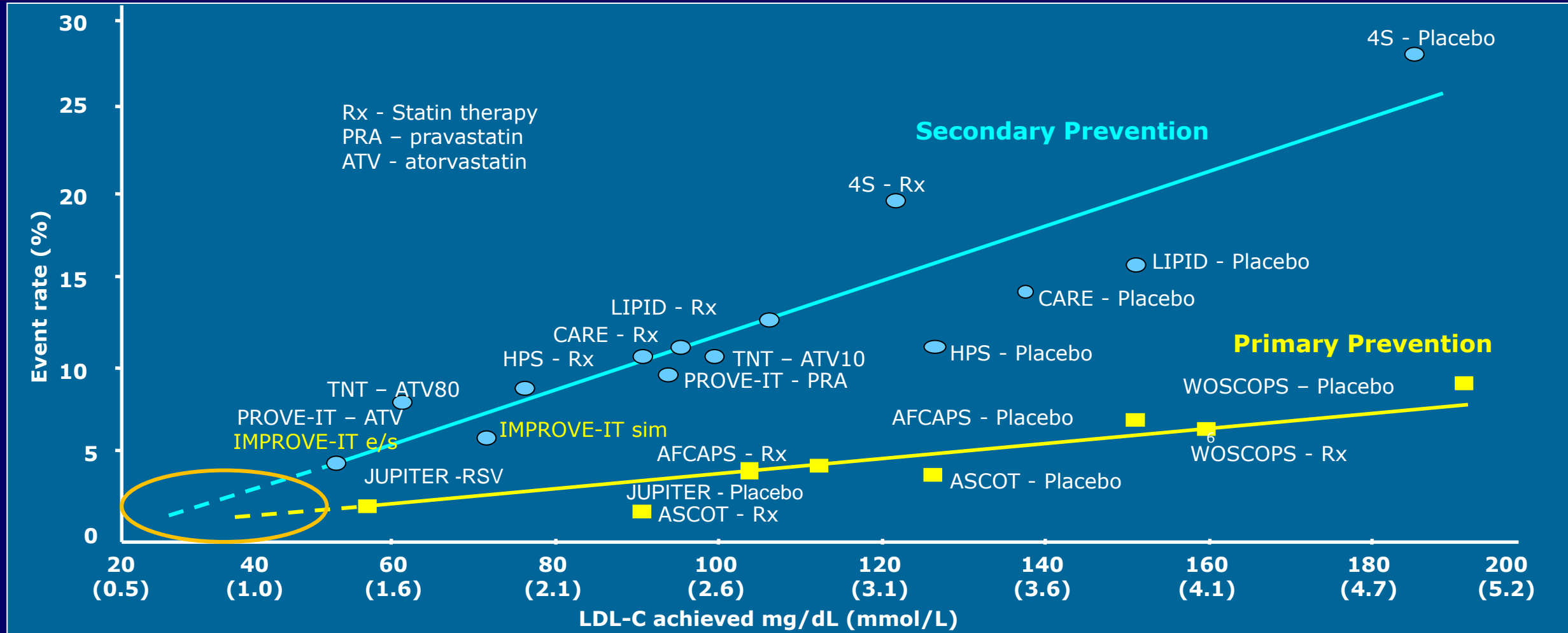
Date	Term	Value	Range Indicator
26-Feb-2020	Serum TSH level	2.2 mU/L (0.27 - 4.20) (MF338) - Normal Advice on requesting and interpreting TFTs on Lab Med website Refer to <a href="https://tinyurl.com/BiochemInfo">https://tinyurl.com/BiochemInfo</a> for further information	
26-Feb-2020	HbA1c level - IFCC standardised	43 mmol/mol (20 - 41) (MF338) - Abnormal - On appropriate treatment - pre-diabetes letter sent	
26-Feb-2020	Serum cholesterol	5.5 mmol/L (MF338) - Normal	
26-Feb-2020	QRISK2 cardiovascular disease 10 year risk score	20.8 %	
26-Feb-2020	O/E - blood pressure reading	121/79 mmHg	
26-Feb-2020	Ideal body weight	66.5 kg	
26-Feb-2020	Urine protein test negative		
26-Feb-2020	Pulse rate	82 beats/min	
26-Feb-2020	Alcohol consumption	0 U/week	
26-Feb-2020	Body weight	103 kg	
26-Feb-2020	Standing height	170 cm	
26-Feb-2020	Bowels: normal		
18-Sep-2019	Faecal calprotectin content	68 ug/g (0 - 50) (THA338) - Satisfactory	

Age-standardised death rates per 100 000 from cardiovascular disease, all ages, UK and England, Wales, Scotland, Northern Ireland, 1979–2013.



# Lessons from completed LDL lowering trials

## 'Lower is better'



## Patient SR - Male - Age 58 – Clinical Drug Trial - 2019

- ⦿ Bempedoic acid 180mg/day vs placebo - Visit S2
- ⦿ Rash below both knees 2/7, nausea & vomit 3/7, stopped medication 4/7
- ⦿ Resolved 5/7
- ⦿ Very surprized



- ⦿ 25 patients, concern about lack of treatment



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Statin wonder drugs help to save millions

Forty Philly still a rascal at 89

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Shares hit in panic over cure

**STATINS CAN BE RISK TO HEALTH**  
But drug is still a life saver

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It cuts heart attack risk for everyone

Germany, Italy and Spain left Europe

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**STATINS KEY TO LIVING LONGER**  
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Medical experts angry that doctors will be paid to prescribe the controversial drugs

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**PARKINSON'S LINK TO STATINS**  
Researchers warn that the mass roll-out of drug leaves 150,000 at risk of developing nerve disease

Tragedy turns to true love

**Daily Mail**

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Even the healthy should take heart drugs, says British expert

**GIVE STATINS TO ALL OVER-50s**

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EXTENSIVE JERRY NER TOUCHING STORY MAKES AMERICA CRY

Scandal of our benefits paid to migrants' children who have never set foot in the UK

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**STATINS HALT ALZHEIMER'S**  
40p a day pill used by millions tackles cruel brain disease

DAYS AFTER RECORD HIGH TEMPERATURES SNOW CHAOS SWEEPS BRITAIN

**The Daily Telegraph**

Millions more told to take statins

Britain's recovery 'strongest in world'

Hopeless, annoying, exhausting: Camilla's verdict on Charles

Young poor have low aspirations, says PM

Dear burglars, pity you left our videos

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COBBIE STAR SIMON: 'HOW I REALISE DEPRESSION CAN STRIKE ANYONE'

POLICE FOIL 40 TERROR ATTACKS SINCE 2005

**STATINS FOR ALL OVER-60s**  
They are the key to longer life for men and women

New Mrs Durak flies in after jungle fears for Michael

**DAILY EXPRESS**

**10p**

JOCKEY WHO WON GRAND NATIONAL IN HORROR FALL

SHAMBLES OVER MIGRANT BACKLOG

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New research shows benefits of wonder drug

AMANDA HOLDEN "Stop making working mums feel so guilty"

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ISLAMIST TERRORISTS PLAN ATTACK ON BRITAIN

**STATINS: MAJOR BREAKTHROUGH**  
New heart pills will have no side-effects

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**TAKE STATINS TO SAVE YOUR LIFE**  
Millions more need the wonder drug say health experts

TIMOTHY WEST MY WIFE PRUNELLA SCALES IS BATTLING ALZHEIMER'S

**The Daily Telegraph**

Champions League: Messi ends City's European dream

Allison Pearson Why no one has an English nanny

Exclusive bank offer: One Night In Winter by Simon Sebag Montefiore for just £2.99

**Statins 'have no side effects'**

Wednesday 20 July 2011

**The Telegraph**

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Health

**5p DAILY EXPRESS**

BAKING BRITAIN AT LAST 9th EUROPE GIVES US SOMETHING TO SMILE ABOUT

GAS SCANDAL BILLS STAY HIGH AS COSTS SOAR BY UP TO 50%

**DOCTORS BAN ON STATINS**  
Medics at war over drug advice

Hello sailor! Kate's nautical and nice

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GET READY FOR 70°F INDIAN SUMMER

**STATINS SLASH CANCER RISK**  
Wonder pill cuts chance of getting disease by 40% says new study

EXCLUSIVE ESTHER SURVIVES SAVILE SCANDAL THANKS TO THE DAILY EXPRESS

High-dose statins 'increase Type 2 diabetes risk'

Hundreds of thousands of people on high-dose statins are increasing their chances of developing diabetes, researchers warn today.



- A trial of PCSK-9 inhibitors in statin intolerant patients
- 81% had failed to tolerate 3 different statins
- Double blind cross-over atorvastatin run in
- 26.5% could not tolerate the placebo
- 43% could not tolerate atorvastatin

**Original Investigation**

FREE

April 19, 2016

## **Efficacy and Tolerability of Evolocumab vs Ezetimibe in Patients With Muscle-Related Statin Intolerance**

The GAUSS-3 Randomized Clinical Trial

Steven E. Nissen, MD<sup>1</sup>; Erik Stroes, MD, PhD<sup>2</sup>; Ricardo E. Dent-Acosta, MD<sup>3</sup>; et al

[» Author Affiliations](#) | [Article Information](#)

JAMA. 2016;315(15):1580-1590. doi:10.1001/jama.2016.3608

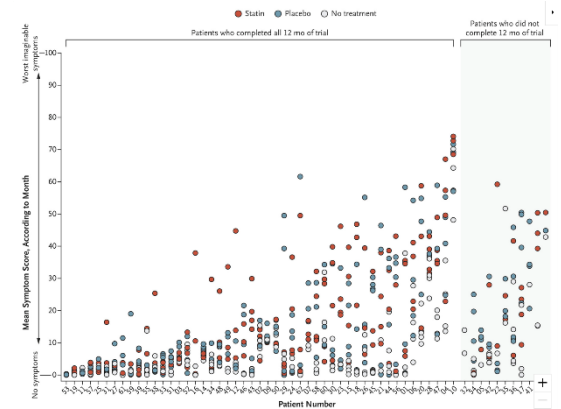


# Prof Darrel Francis – SAMSON Trial - 2020

- 60 patients with statin intolerance recruited via BHF
- Randomised to 3 bottles – atorvastatin 20mg – placebo - empty
- Symptom intensity A20 16.3% P 15.4% E 8.0%
- Nocebo effect
- 30 patients restarted statins without side effects

CORRESPONDENCE

## N-of-1 Trial of a Statin, Placebo, or No Treatment to Assess Side Effects





## Statin Hesitancy Game-Plan

- Shared decision making
- Health care provider education
- Patient education
- Pravastatin 20mg daily plus ezetimibe 10mg
- Rosuvastatin 5mg twice weekly plus ezetimibe 10mg
- Bempedoic acid 180mg plus ezetimibe 10mg (NICE TA694)
- Inclisiran in those with a history of events % LDL-C > 2.6 mmol/l (NICE TA733)

# What is the ideal age to start a statin in Familial Hypercholesterolemia?

- ④ 4?
- ④ 12?
- ④ 18?
- ④ 25?
- ④ 30?
- ④ 40?

1. Wald DS. NEJM 2016; 375:17.

From the Wolfson Institute of Preventive Medicine, Barts and the London School of Medicine and Dentistry, Queen Mary University of London (D.S.W., J.P.B., J.K.M., K.W., N.J.W.), and the North East Thames Molecular Genetics Laboratory, Great Ormond Street Hospital (L.J.) — all in London. Address reprint requests to Dr. Wald at the Wolfson Institute of Preventive Medicine, Barts and the London School of Medicine and Dentistry,

The NEW ENGLAND JOURNAL of MEDICINE

## ORIGINAL ARTICLE

### Child–Parent Familial Hypercholesterolemia Screening in Primary Care

David S. Wald, F.R.C.P., Jonathan P. Bestwick, M.Sc., Joan K. Morris, Ph.D., Ken Whyte, Lucy Jenkins, F.R.C.Path., and Nicholas J. Wald, F.R.S.

## ABSTRACT

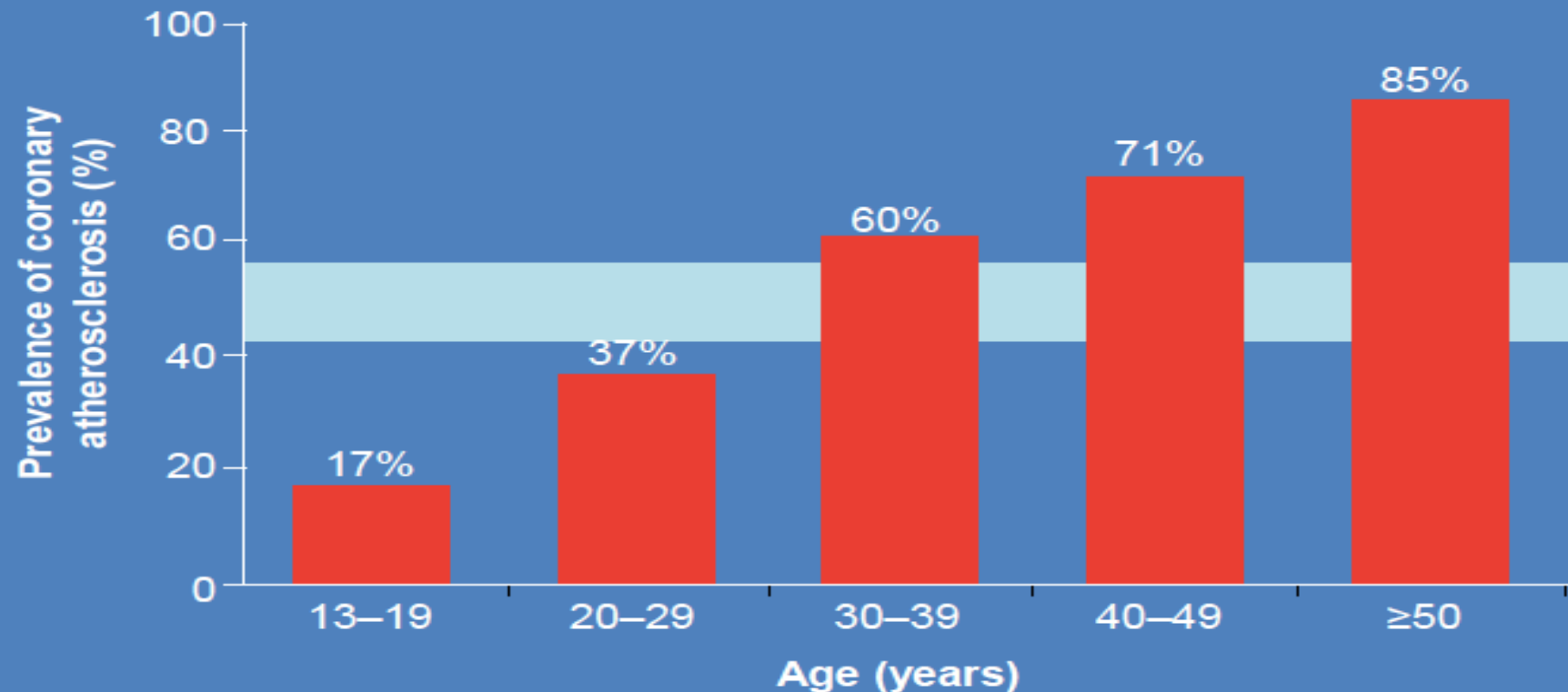
#### BACKGROUND

Child–parent screening for familial hypercholesterolemia has been proposed to identify persons at high risk for inherited premature cardiovascular disease. We assessed the efficacy and feasibility of such screening in primary care practice.

#### METHODS

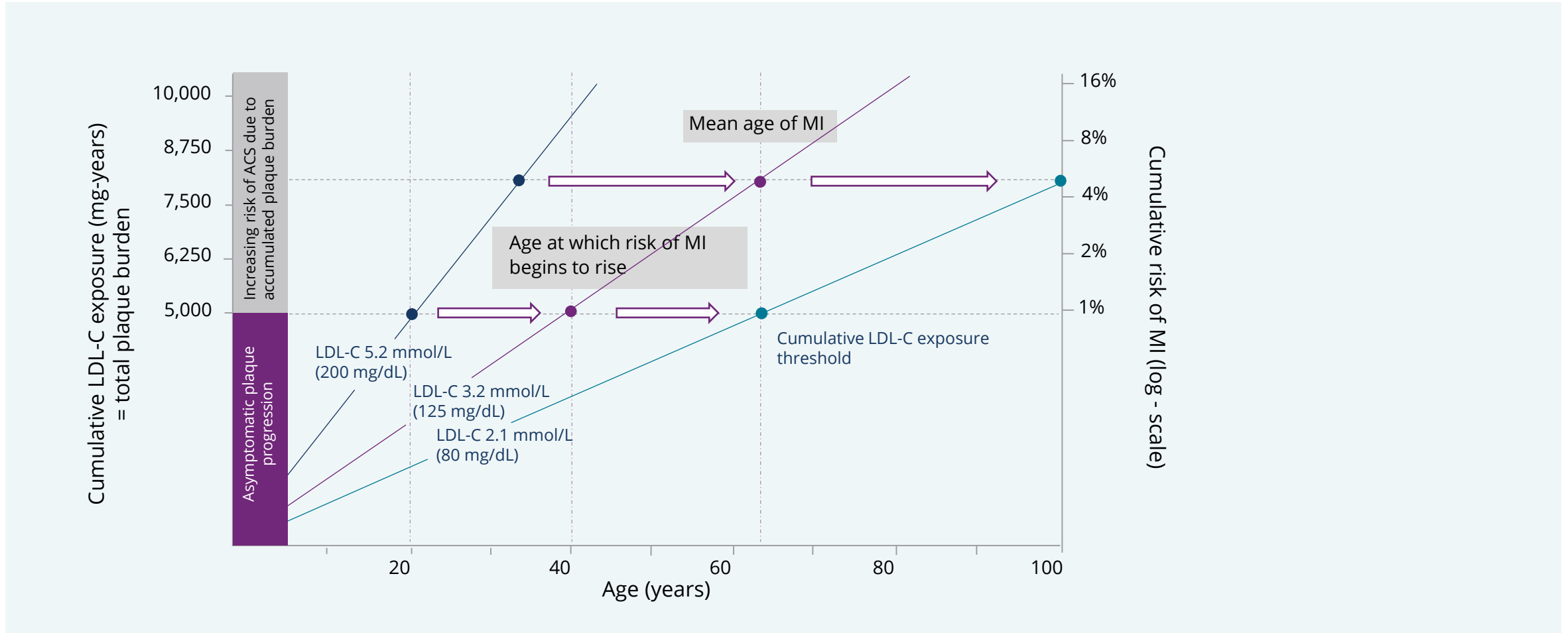
We obtained capillary blood samples to measure cholesterol levels and to test for familial hypercholesterolemia mutations in 10,095 children 1 to 2 years of age during routine immunization visits. Children were considered to have positive screening results for familial hypercholesterolemia if their cholesterol level was

# Atherosclerosis: When does it begin?<sup>1</sup>



Data from 262 heart transplant donors.  
Sites with intimal thickness  $\geq 0.5$  mm were defined as atherosclerotic.

# Magnitude and Duration of LDL-C Exposure Impact ASCVD Risk<sup>1</sup>



Adapted from Ference BA et al. J Am Coll Cardiol 2018.<sup>1</sup>

ACS – acute coronary syndromes; ASCVD – atherosclerotic cardiovascular disease; LDL-C – low-density lipoprotein cholesterol; MI – myocardial infarction

**Reference:** 1. Ference BA et al. J Am Coll Cardiol 2018;72(10):1141-1156.





03

# Statin Intolerance: Benefit vs Risk A balanced Evidence-Based Assessment

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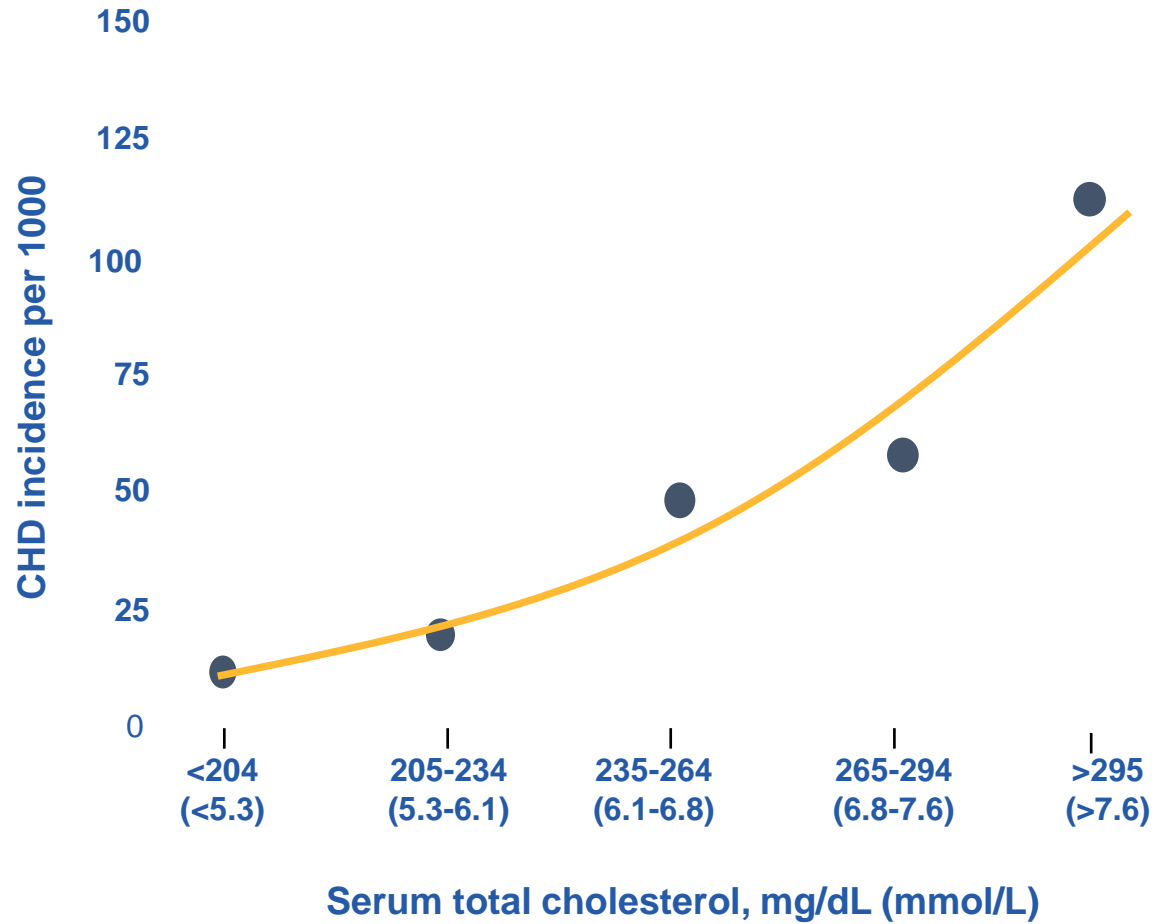
**Professor Handrean Soran MSc MD FRCP**

Central Manchester University Hospitals NHS Foundation Trust,  
Manchester, United Kingdom



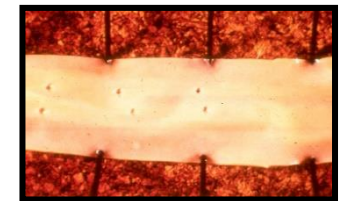
# The Framingham Study: Relationship Between Cholesterol and CHD Risk

Nikolai Nikolaevich Anitschkow (1885 – 1964)



↓  
Lots of Egg Yolk

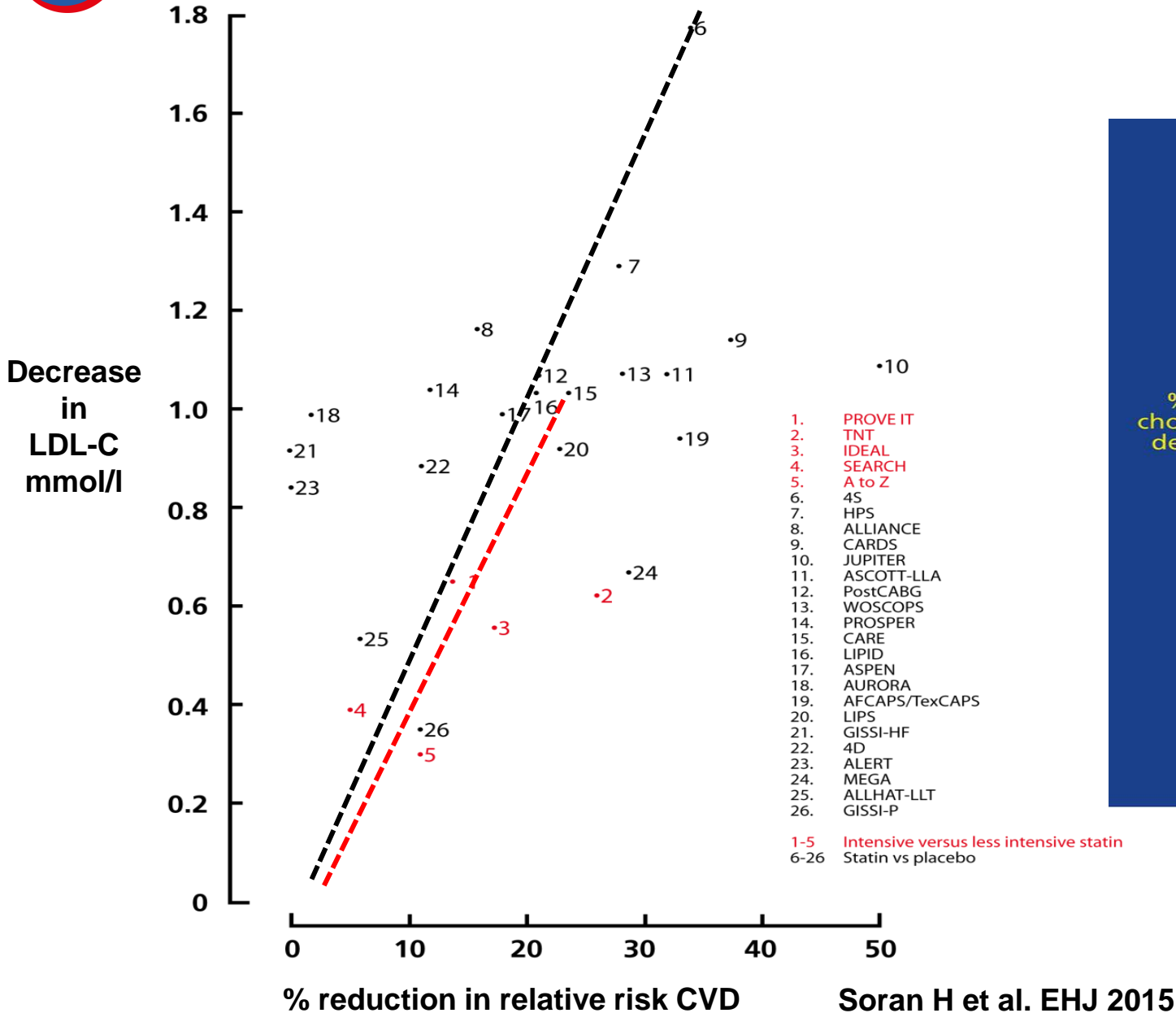
↓  
Vegetables



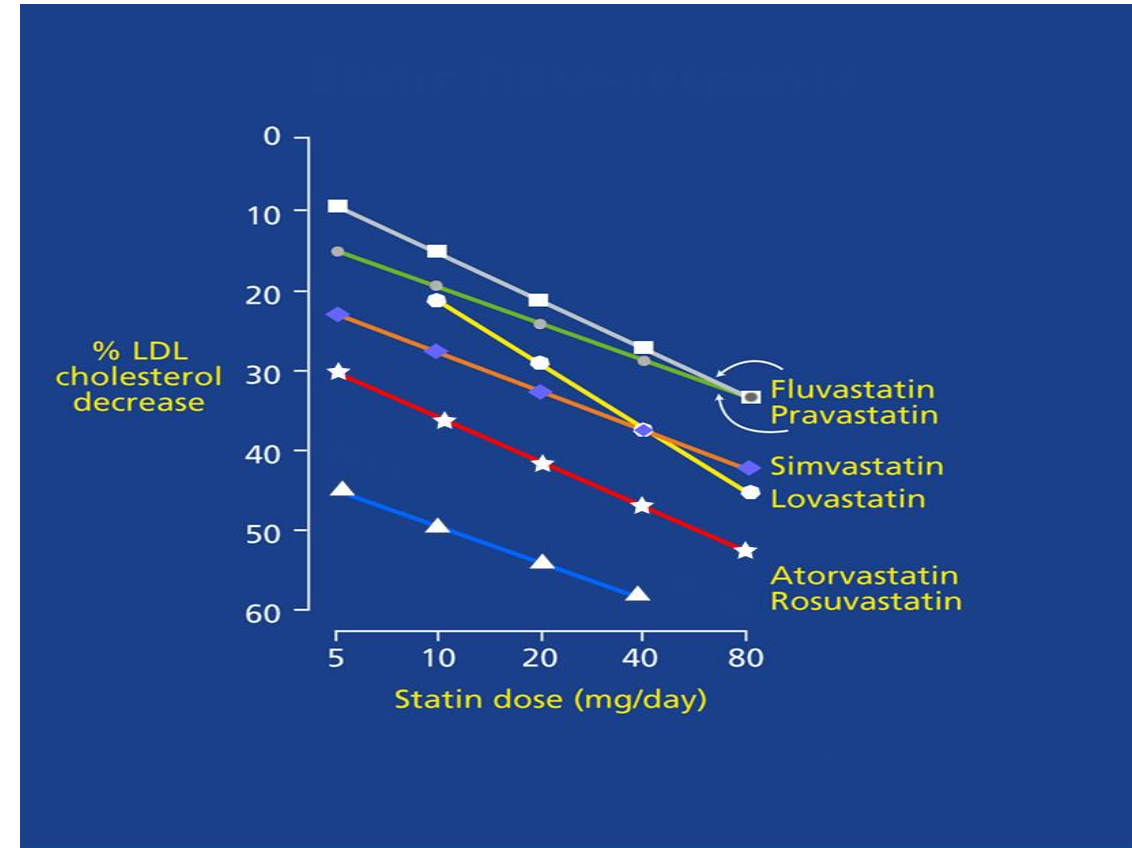
**“Without cholesterol there can be no atherosclerosis”**

Castelli WP. *Am J Med.* 1984;**76**:4-12

Stehbens WE. Anitschkow and the cholesterol over-fed rabbit. *Cardiovasc Pathol* 1999;8:177-8.  
 Finking G, Hanke H. Nikolaj Nikolajewitsch Anitschkow (1885-1964) established the cholesterol-fed rabbit as a model.  
 Igor E. Konstantinov, Nicolai Mejevoi, and Nikolai M. Anichkov. Nikolai N. Anichkov and His Theory of Atherosclerosis. *Tex Heart Inst J.* 2006; 33(4): 417-423.



## Statin potency

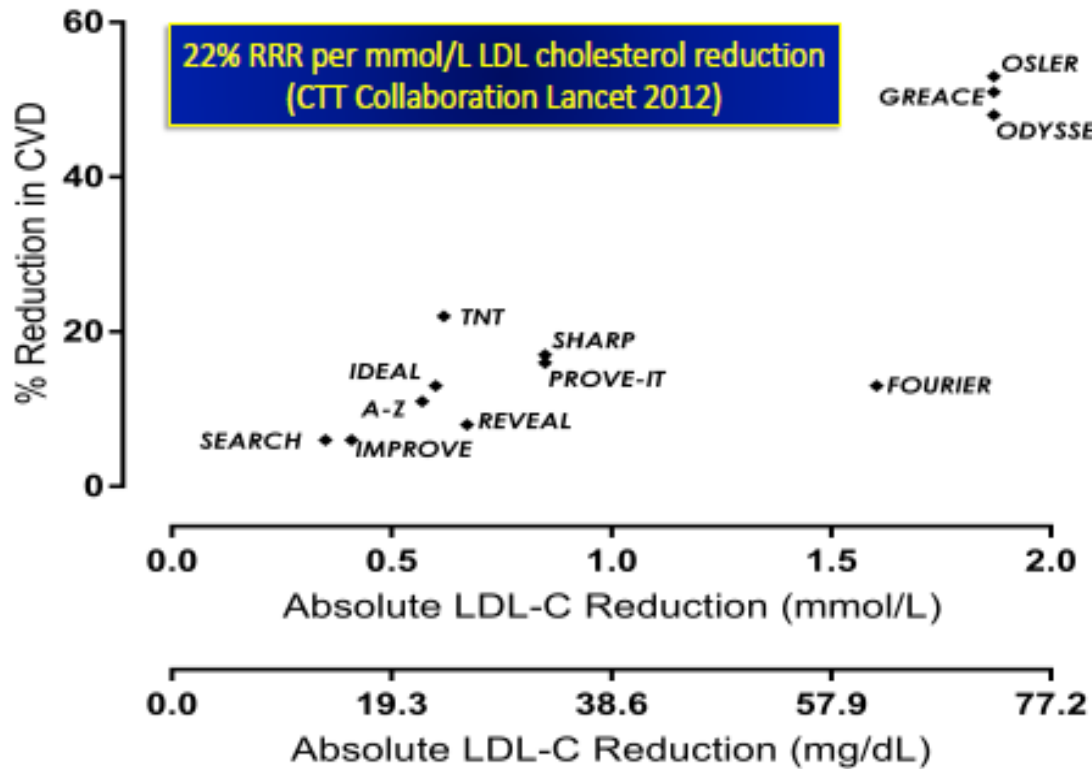


Soran H, Durrington N. *Curr Opin Pharmacol* 2008

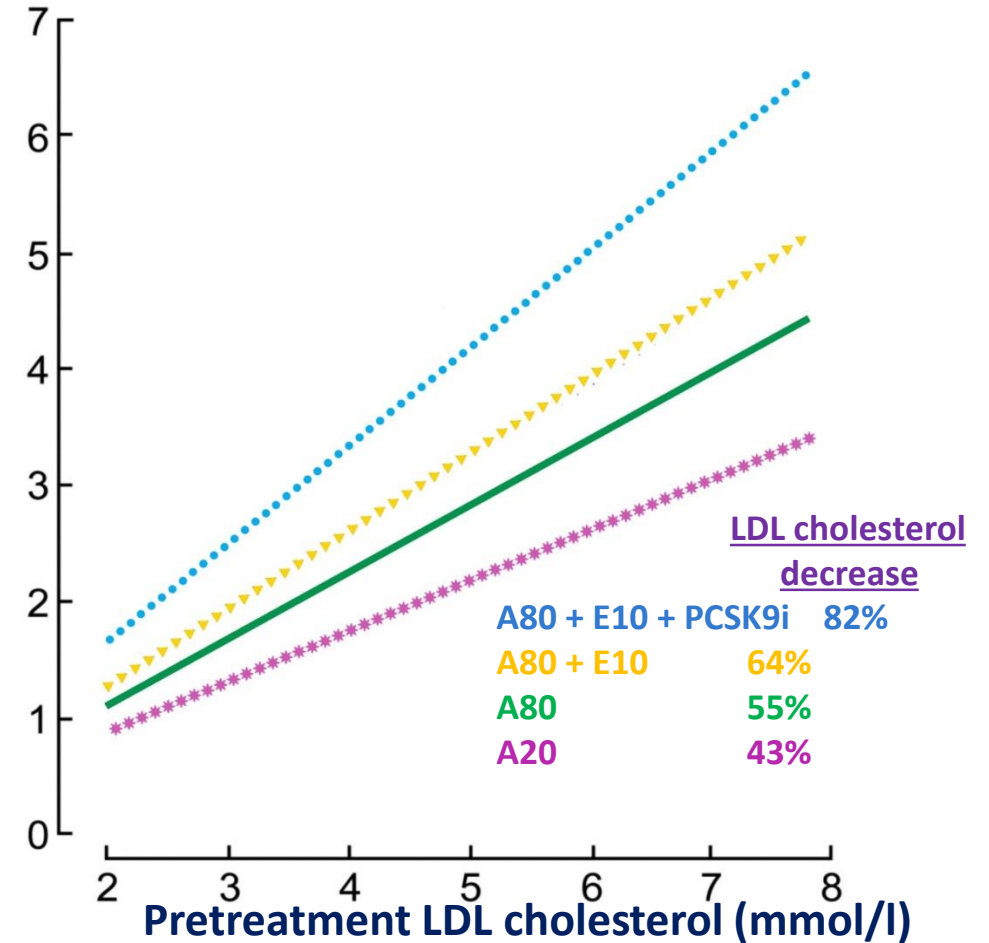


# What Influences LDL-C reduction? Absolute LDL-C is what matters.

## Absolute LDL cholesterol reduction and VD risk reduction in clinical trials



LDL cholesterol decrease on treatment (mmol/l)



Soran et al 2018

Soran H, Adam S, Durrington PN. Atherosclerosis 2018



# NNT\* with and without LDL-C targets

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10-year CVD risk	Pre-treatment LDL cholesterol mmol/l				
	2 (-0.2,-0.86)	3 (-1.2,-1.29)	4 (-2.2,-1.72)	5 (-3.2,-2.15)	6 (-4.2,-2.58)
	<u>NNT</u>				
5%	412	78	47	36	31
7.5%	275	52	32	24	24
10%	206	39	24	18	15
20%	103	19	12	9	8
30%			6		

\*Number needed to treat to prevent one CVD event in 10 years calculated from  $NNT=100 \div [(1-0.78^{LDL}) \times risk]$  (Data derived from Soran et al EHJ 2015)

Figures in parentheses are LDL cholesterol decrease in mmol/l.

Figures in red are for cholesterol-lowering treatment titrated to a target LDL cholesterol of 1.8mmol/l.

LDL-C is too low: Concerned?

# Statin Side Effects: RCTs vs Observational Studies

- There has been considerable controversy about the true incidence of side-effects of statins and how much these impair their therapeutic effectiveness (1-14).
- On the one hand randomised controlled clinical trials report **very low** rates of even the most well authenticated side effects, such as myopathy (5, 6), but on the other, in uncontrolled observational studies, muscle symptoms are reported in as many as **10-20%** of statin recipients (6, 9, 11, 13).

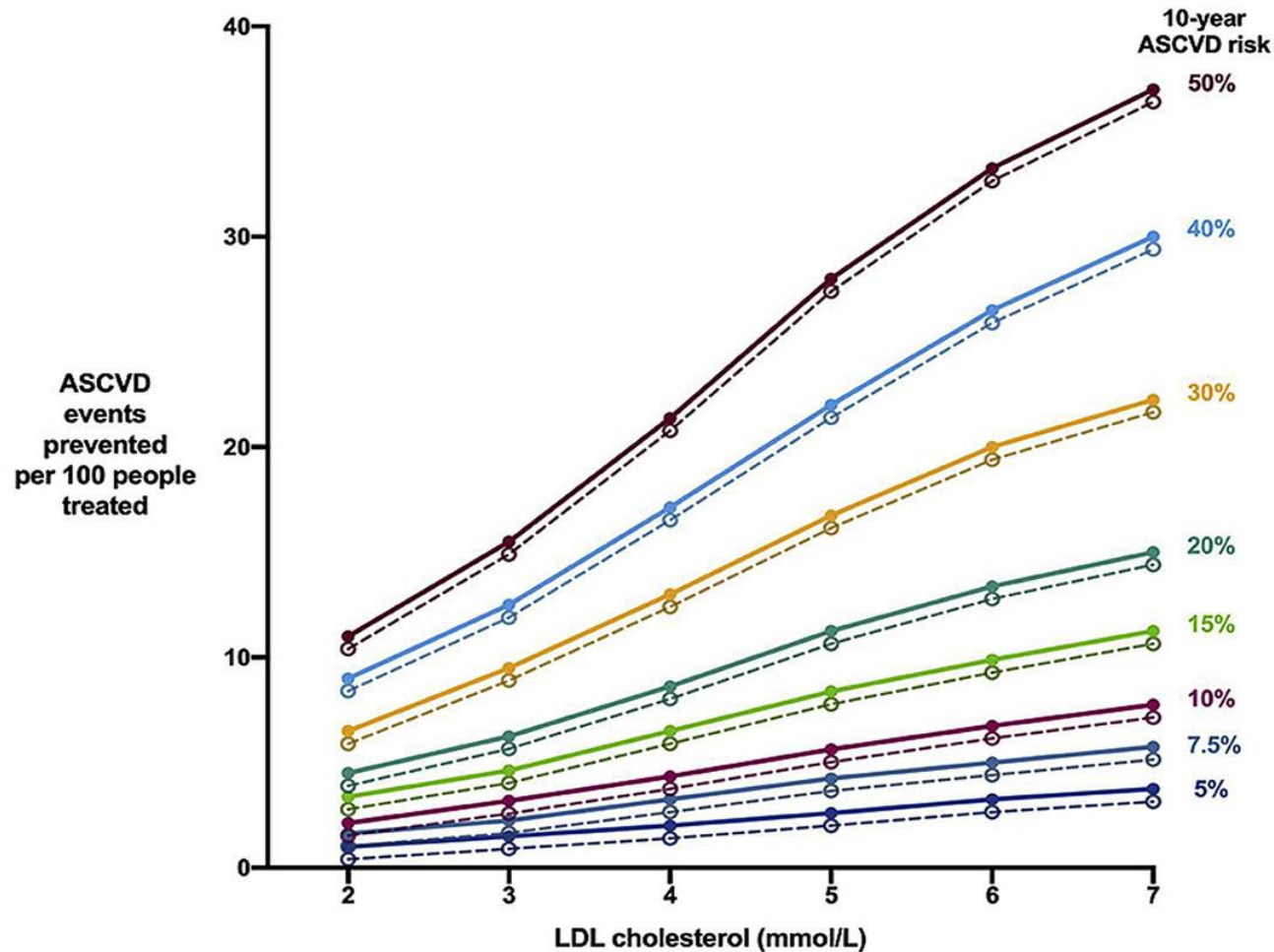
# Statin Side Effects: Evidence from RCTs

	CTT Meta-Analysis		QRISK*		SEARCH**		A-Z**	
<b>Participants</b>	129526		2004692		12064		4497	
<b>Side effects 10y<sup>-1</sup></b>	Control	HR	Controls	HR	Controls	HR	Controls	HR
<b>Myopathy</b>	0.03%	1.6	0.09%	4 †	0.03	45	0.2%	10
<b>Liver Dysfunction</b>	††	1	1.4%††	1.5	0.3%†††	1	2%†††	2.3

Incidence (% over 10 years) of adverse events in controls and hazard ratio (HR) for incidence in active or more intensive statin treatment versus control. Notes: \*Non-randomised observational (controls untreated with statin); \*\* Randomised to Simvastatin 20mg (controls) or to 80mg daily †; 2.97 in women and 6.15 in men; † † ; not detected in controls or actively treated participants; ††3xULN; †††4XULN.

Soran et al. Atherosclerosis 2020; Hippisley-Cox J, et al. Bmj. 2010; 340: c2197; Law MR, et al. Bmj. 2003; 326(7404): 1423; Armitage J, et al. Lancet 2010; 376(9753): 1658-69; de Lemos JA, et al. JAMA 2004; 292(11): 1307-16.

## Making sense from benefit/risk balance



The continuous lines show the number of atherosclerotic cardiovascular disease (ASCVD) events prevented per 100 people treated with statins for 10 years ( $N_{100}$ ) with a therapeutic LDL cholesterol target of 50% reduction or  $<1.8\text{mmol/l}$ , whichever is lower, as a function of the pre-treatment LDL cholesterol concentration at different degrees of absolute 10-year ASCVD risk.

The interrupted lines show the same but, when benefit is adjusted for harm equivalent to an ASCVD event by subtraction of 0.1333 (the number per 100 harmed ( $NH_{100}$ )) from the number of people avoiding an ASCVD event per 100 treated ( $N_{100}$ ).

NNT to prevent one ASCVD is between 3 and 61 depending on ASCVD risk and pre-treatment LDL cholesterol. There is no category of patient recommended for statin treatment under current guidelines where harm outweighs benefit.

Compared with the serious consequences of not treating with statins, statin intolerance is generally mild, non-life threatening and reversible after stopping or changing the statin. Statin adverse events of potentially equivalent severity to ASCVD occur with a frequency of  $<0.133\%$  ( $<1$  in 750) over 10 years and erode statin benefit only minimally.

## Poor statins: blamed for:

- Vitamin deficiency: Vit D, B12, IDA....
- RhA: Stiffness, attended GP, stopped statin ...
- Fall attended A&E, CK normal, stop statin and discharge!
- Poor mobility: Parkinson's Disease
- OA
- Stroke/TIA
- Gout
- MND
- And many other

# Statin Side Effects: A Reasonable Approach

Statins remain the cornerstone of lipid lowering therapy and have an excellent (best) safety profile

All efforts should be made to improve compliance

Some unreasonable suggestions in the media should be resisted

which is efficacious at **low dose, hydrophilic**, titrated up to a dose below which SI is not encountered.

- V. If the **target LDL-C has not been achieved**, adjunctive ezetimibe is the next step in most patients. Consider other therapies like PCSK9 MABs, Bempedoic acid, Inclisiran....



- There is a considerable and growing burden of CVD
- Standard accepted practice for improving control of LDL-C has evolved, but beliefs can override
- Lessons from completed LDL lowering trials provide strong evidence that 'Lower is better'. All efforts should be made to improve compliance
- Combination therapies can increase adherence and lower LDL-C closer to target
- Statins remain the cornerstone of lipid lowering therapy and have an excellent (best) safety profile

# Q&A

## Next steps:

Join us and book for the final ninth webinar in the series:

Weds 16th Feb 2022 1-2pm

### Diabetes, obesity & lipids:

Dr Derek Connolly, Professor Terry McCormack and Dr Adie Viljoen will review multiple mechanisms of how diabetes and obesity increases cardiovascular risk, the metabolic syndrome, and the subsequent increased risk for acute coronary events.

### Keep an eye out on the TCT home pages on the HEART UK website for the informal case based interactive clinics

All programme content, recordings and next webinar bookings will be housed in the HEART UK pages. Visit the site for the new e-Learning modules on Identifying FH in primary care, Statin Intolerance, and the Lipid Management Pathway

Tackling  
Cholesterol  
Together

# Thank you

**This webinar has now finished.**

Today's slides and recording will be available after the webinar on the HEART UK pages. Visit the site for the **new** e-Learning modules on diet launching in November. Identifying FH in primary care, Statin Intolerance, and the Lipid Management Pathway modules are also available.

All programme content, recordings and next webinar bookings will be housed here:  
<https://www.heartuk.org.uk/tackling-cholesterol-together/home>

Saving Lives.

Lowering Cholesterol!