

HEART UK website article:



## HEART UK 36<sup>th</sup> Annual Medical and Scientific Conference 2023

### LIPIDS – THE BEST YET - CONFERENCE REVIEW

Wednesday 5<sup>th</sup> – Friday 7<sup>th</sup> July 2023

**Written by:** Dr Andreas Tridimas, Consultant in Chemical Pathology & Metabolic Medicine, Countess of Chester Hospital and Wirral University Teaching Hospital, UK

The HEART UK conference this year reflected on the current progress to date across a wide range of key areas within the lipidology realm. This included an update on the cardiovascular disease (CVD) prevention nationally with a focus on the primary care data resource CVDPREVENT. In addition, there was a spotlight on paediatric FH and an insightful look back on the dramatic progress since the identification of PCSK9 as a lipid treatment target.

#### Session 1: The national picture

##### General update on the National Perspective



**Dr Shahed Ahmad (London, UK)** in his role as National Clinical Director for CVD, highlighted the scale of annual CVD deaths, with similar numbers to the first year of the COVID-19 pandemic, emphasising the importance of tackling CVD as if it were a pandemic. However, rather than needing to create vaccines, we already have the necessary treatments to reduce CVD, they just need robust application to our populations. He then signposted delegates to view the CVDPREVENT website with its wealth of national primary care data on metrics such as percentage of patients with CVD on lipid lowering therapy. Using examples he highlighted the significant unwarranted clinical variation across geographical areas, underscoring the need to tackle regional variation.

## **Session 2: The impact of multiple treatments**

### **Cardiovascular disease prevention and clinical trials**

**Prof Azfar Zaman (Newcastle, UK)** outlined the impressive reductions in ischaemic heart disease deaths over the last two decades when compared with other causes such as malignancy and influenza. Importantly however, he stressed the need for us to consider the impact of morbidity from CVD events and not simply focus on mortality data. Regarding the pathophysiology of CVD, he reiterated the multiple well-established factors driving its development such as diabetes, inflammation, and dyslipidaemia. He then stressed the point that amplified benefits are seen when we intervene to address the multiple causal pathologies for CVD development, as opposed to focusing on risk factors in isolation.



### **Lipids, inflammation and biologics**

**Prof Ernest Choy (Cardiff, UK)** Rheumatologist Professor Choy made the important point that in rheumatoid arthritis the principal driver of the increased mortality seen, is CVD. He pointed out that lipid levels are only part of the picture, and in fact it is the level of inflammation that appears to drive the process of CVD development. As such, he stressed the importance of reducing inflammation first and foremost.

## **Session 4: Paediatrics**

### **Paediatric FH: Reflections from the past, innovations of the present and visions for the future**

**Mrs Lorraine Priestley-Barnham (Harefield, UK)** as a Paediatric FH Clinical Nurse Specialist she made the key point that “children can have high cholesterol too”. Much of our focus to date has been on adults with FH, however Lorraine stressed the importance of starting treatment early in life. A statement she supported with reference to multiple long-term studies showing statin safety in children. She directed the audience to the HEART UK statement of care for paediatric FH as a resource to guide clinical teams.



**Dr Laila Tata (Nottingham, UK)** outlined her involvement in an NIHR funded project to revive the paediatric FH register over the next 5 years. Established in 2012 but dormant until recently, the aims of the project are to collect data across a range of metrics in paediatric FH, to describe current variation in practice and look at long-term safety. This project hopes to establish a solid evidence base on which to help inform future paediatric clinical practice.

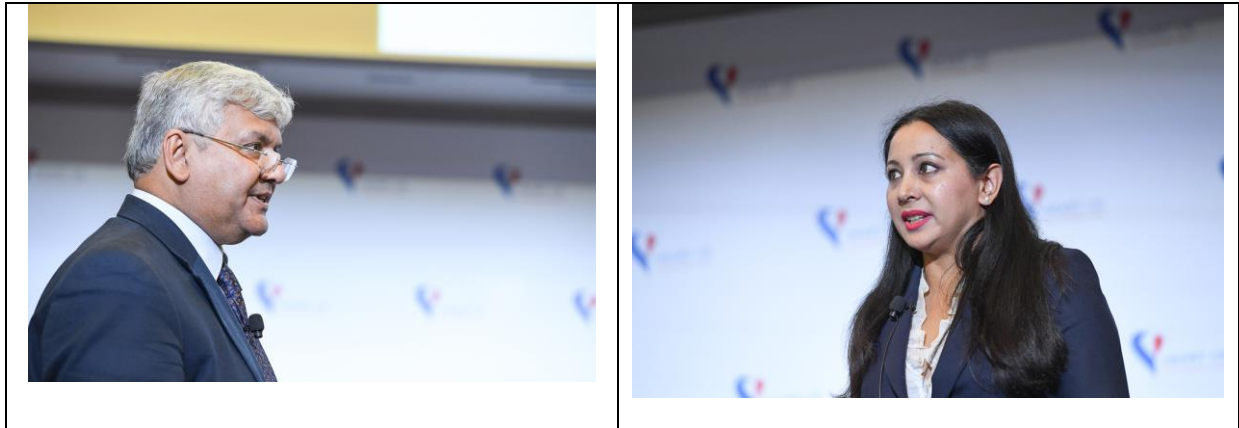


#### **Session 5: Practicalities of Diet and Lifestyle in Lipid Management**

**Ms Elphee Medici (London, UK)** detailed the burden of poor diet with that less than 0.1% of people currently adhering to the Public Health England Eatwell guide and fewer than 10% meeting dietary fibre recommendations. As a tool to help combat this she directed the audience to a useful online resource, the 'HEART UK Cardiovascular Diet Checklist'. This uses 16 Yes or No questions to provide a comprehensive overview of how "heart-healthy" a diet is. Feedback is then provided to guide improvement. The HEART UK team is currently updating the digital version to provide more tailored guidance and practical tips.

#### **Session 6**

**Lipid Education and learning from inappropriate referrals. Lessons from the Harefield experience.**



**Prof Gordon Ferns (Brighton) and Dr Tina Khan (Harefield)** Professor Ferns used his local experience to draw attention to the rising tide in lipid clinic referrals resulting from factors such as new lipid lowering therapies and treatment guidelines. He outlined how this has led to his service having to implement strategies to ensure the service remains sustainable. Dr Kahn outlined her team's adaptive approach to dealing with referral volume which has included upskilling other members of the team such as specialist nurses to oversee referral triage, as well as lipid education sessions and webinars.

### **Session 8**

#### **Keynote Myant lecture: Familial hypercholesterolemia and PCSK9: from genetics to clinical trials**

##### **Prof Catherine Boileau (Paris, France)**

In this year's Myant lecture delegates were taken on a fascinating journey by one of the key researchers to have identified a central treatment target in modern-day lipid lowering therapy. Prof Boileau started her talk by illustrating some of the earliest historic evidence of lipid disorders with xanthelasma on Da Vinci's Mona Lisa to tendon xanthoma on the Charioteer of Delphi. From ancient Greece to modern day, Prof Boileau and her team first showed in 2003 how mutations in PCSK9 cause autosomal dominant hypercholesterolemia. In 2006 came evidence that sequence variations in PCSK9 led to lower LDL and protection against coronary heart disease. What followed was a flurry of scientific development and within 12 years of Professor Boileau's study, the first PCSK9 inhibitor, Alirocumab was approved for clinical use in what many regard as the pharmacotherapeutic innovation of the decade for CVD prevention.



*L-R – Prof Handrean Soran (Manchester), Prof Catherine Boileau (Paris), Miss Jules Payne (CE, HEART UK)*