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Scottish Lipid Forum

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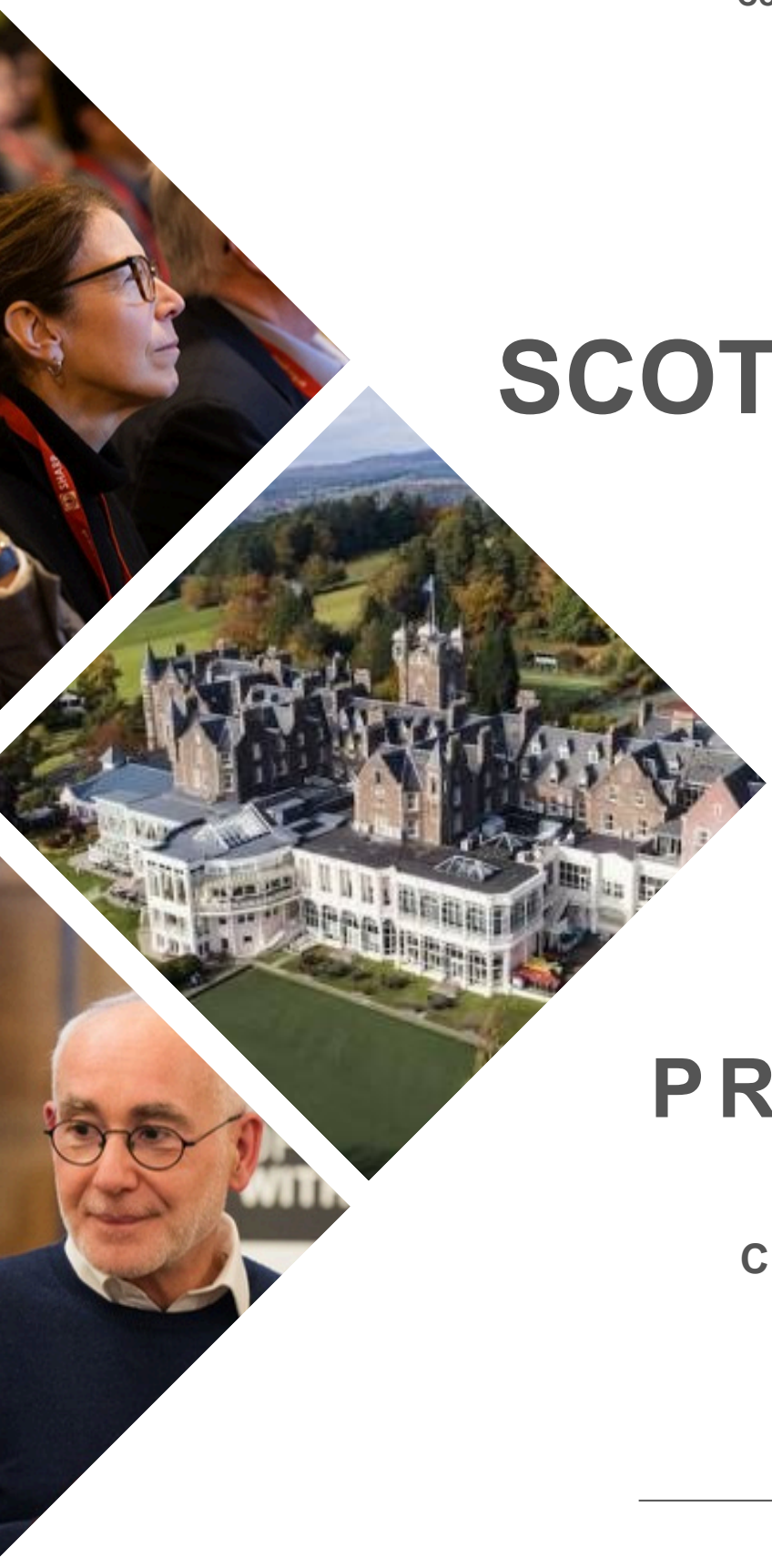

SHARP & SCOTTISH LIPID FORUM ANNUAL MEETING

PROGRAMME

CRIEFF HYDRO HOTEL

6 - 7 NOVEMBER 2025

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Agenda

THURSDAY 6TH NOVEMBER

Time	Description	Location
08:30	Registration & Exhibition	The Hub / Melville Hall
09:25	Welcome & Session 1	Melville Hall
10:30	Refreshment Break & Exhibition	Melville Hall
11:00	Workshops	Various
12:30	Lunch	Meikle Restaurant / Melville Hall
12:35	Daiichi Sankyo Lunchtime Symposium	Ferntower Suite
13:30	Keynote Lecture & Session 2	Melville Hall
15:10	Refreshment Break & Exhibition	Melville Hall
15:40	Session 3	Melville Hall
17:00	Closing Remarks	Melville Hall
19:00	Drinks Reception & Exhibition	Melville Hall
19:30	Annual Dinner	Melville Hall

FRIDAY 7TH NOVEMBER

Time	Description	Location
08:30	Registration & Exhibition	The Hub / Melville Hall
09:30	Welcome & Session 4	Melville Hall
10:45	Refreshment Break & Exhibition	Melville Hall
11:15	Workshops	Various
12:45	Lunch	Meikle Restaurant / Melville Hall
14:10	SHARP Prize Awards & Session 5	Melville Hall
15:30	Closing remarks and adjourn	Melville Hall

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Thursday Morning Programme

Session 1: Scottish Government Strategy for CVD

Time: 08:30 - 10:30
Room: Melville Hall

Chair: Professor Mary Joan MacLeod, SHARP Chair & Consultant, NHS Grampian

08:30 **Registration, Refreshments & Exhibition**
The Hub / Melville Hall

09:25 **Welcome**

Session 1 - Scottish Government Strategy for CVD

09:30 **Overview**
Karen Duffy, Delivery Director for Preventative and Proactive Care
Scottish Government Health and Social Care Directorate

09:40 **Implications for Primary Care Practice**
Dr Alexia Pellowe, Clinical Director, NHS Ayrshire and Arran

10:00 **Implications for Secondary Care Practice**
Professor Brian Kennon, Consultant Diabetologist
CVD Prevention, Scottish Government

10:20 **SHARP Prize Presentation**
SGLT2-inhibitor and GLP1R-agonist use is associated with improved outcome in patients with aortic stenosis
Miss Yashika Relan, 3rd Year Medical Student, University of Dundee

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Refreshment Break & Exhibition

Time: 10:30 - 11:00
Room: Melville Hall

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Thursday's Workshops

Time: **11:00 - 12:30**

Please make sure to attend your assigned workshop, as indicated on your delegate badge. Space in the workshops is limited, so it's important to stay with your designated group. Each workshop will last 40 minutes and you will have the opportunity to attend two workshops.

01

Update on Lp(a)

Dr Rosemary Clarke, SLF Chair & Consultant Medical Biochemist
NHS Highland

Room: TBC

02

CPR

Mr John Ramsay, Resuscitation Officer
University of Dundee

Room: TBC

03

Interpreting an ECHO report

Dr Ify Mordi, Clinical Senior Lecturer/Honorary Consultant
University of Dundee

Room: TBC

04

Multidisciplinary Approaches to Reducing Cardiovascular Disease Risk: The Evolving Role of Pharmacists

Miss Nichola Shaw, Lead Pharmacist, Cardiology and Acute Medicine,
Raigmore Hospital, NHS Highland

Lyndsay Steel, Lead General Practice Pharmacist, NHS Orkney

Professor Andrew Radley, Professor of Public Health Pharmacy
University of Dundee

Room: TBC

05

The role of Apo E2/E2 genetics in investigating mixed hyperlipidaemia

Note: This workshop will run only once at 11:00.

Dr Jonathan Malo, Consultant Chemical Pathologist, Royal Infirmary Edinburgh

Mrs Dawn O'Sullivan, Deputy Head of Laboratory Genetics /
Consultant Clinical Scientist, NHS Grampian

Room: TBC

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Daiichi Sankyo Lunchtime Symposium

This promotional symposium has been organised and funded by Daiichi Sankyo UK Ltd where medicines will be discussed and is intended for UK HCPs only.

Prioritising Lipid Management to Reduce CV Risk

Overview: The talk is on Lipid management and the importance of LDL-C reduction to reduce CV Risk. This includes the importance of managing LDL-C from a primary and secondary prevention perspective.

Time: 12:35 - 13:20
Room: Ferntower Suite

Chair Dr Colin Petrie, Consultant Cardiologist, NHS Lanarkshire

Speakers Dr Caroline Millar, Consultant in Chemical Pathology & Metabolic Medicine
NHS Greater Glasgow & Clyde

Dr Kashif Ali, GPwSI (Diabetes) Primary Care MCN Lead
NHS Greater Glasgow & Clyde

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Lunch & Exhibition

Time: 12:30 - 13:30
Room: Meikle Restaurant / Melville Hall

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KEYNOTE LECTURE

Milestones and Signposts from 60 years of Cardiovascular Medicine

Time: 13:30 - 14:00
Room: Melville Hall

Keynote Summary

Chair Professor Christian Delles
Professor of Cardiovascular Prevention; Head of the School of Cardiovascular and Metabolic Health, University of Glasgow; and Honorary Consultant Physician, NHS Greater Glasgow & Clyde

Speakers Professor Adrian Brady

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Thursday afternoon programme

Session 2: Renal Disease – Dilemmas in Cardiovascular Practice

Time: 14:00 - 15:10
Room: Melville Hall

Chair: **Professor Christian Delles**
Professor of Cardiovascular Prevention; Head of the School of Cardiovascular and Metabolic Health, University of Glasgow; and Honorary Consultant Physician, NHS Greater Glasgow & Clyde

14:00 **SGLT-2i**
Dr Shona Methven, Consultant Nephrologist
NHS Grampian

14:20 **The role of imaging in CVD prevention**
Dr Michael McDermott, Cardiology Registrar
NHS Lothian

14:40 **How to measure blood pressure accurately**
Dr Fiona Chapman, Senior Clinical Research Fellow & Honorary Consultant Nephrologist
University of Edinburgh & NHS Lothian

15:00 **SHARP Prize Presentation**
Effect of timed dosing of usual antihypertensives according to patient chronotype on cardiovascular outcomes: the Chronotype sub-study cohort of the Treatment in Morning versus Evening (TIME) study
Dr Filippo Pigazzani, Clinical Senior Lecturer
University of Dundee

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Refreshment Break & Exhibition

Time: 15:10 - 15:40
Room: Melville Hall

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Thursday afternoon programme

Session 3: Scottish Lipid Forum

Time: 15:40 - 17:00
Room: Melville Hall

Chairs: Dr Jonathan Malo, Consultant Chemical Pathologist, Royal Infirmary Edinburgh
Dr Rosemary Clarke, SLF Chair & Consultant Medical Biochemist, NHS Highland

15:40 **Introduction: The lipid profile - how we currently use it**
Dr Jonathan Malo, Consultant Chemical Pathologist, Royal Infirmary Edinburgh
Dr Rosemary Clarke, SLF Chair & Consultant Medical Biochemist, NHS Highland

15:50 **The lipid profile and what it tells us**
Dr Julia Kenkre, Consultant in Metabolic Medicine, Imperial College Healthcare NHS Trust

16:10 **Fenofibrate and Retinopathy – The LENS Trial**
Professor David Preiss, Professor of Metabolic Medicine and Clinical Trials
University of Oxford

16:30 **Ketogenic diets, hyperlipidaemia and ASCVD**
Dr Richard Kirwan, Senior Lecturer in Nutrition & Exercise Physiology
Liverpool John Moores University

16:50 **SHARP Prize Presentation**
Inequalities in the provision of guideline-directed medical therapy following myocardial infarction: a cohort study
Dr Marie de Bakker, Postdoctoral Researcher, University of Edinburgh

17:00 **Closing Remarks**

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Thursday evening programme

Time: 19:00
Room: Melville Hall

Drinks Reception

Join us for the Drinks Reception starting at 19:00 in the Melville Hall. This is another excellent opportunity to engage with our exhibitors & explore the poster display. Enjoy a relaxed atmosphere as you network with colleagues.

Annual Dinner

Our Annual Dinner will be held in the Melville Hall. This setting provides a chance to unwind and continuing conversations with peers and colleagues. It's the perfect setting to celebrate our shared achievements and foster new connections.

We are delighted to welcome Lubna Kerr, as our after-dinner speaker.

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Friday morning programme

Session 4: Heart Failure - Dilemmas in Cardiovascular Practice

Time: 08:30 - 10:45
Room: Melville Hall

Chair: Professor Isla Mackenzie, Professor of Cardiovascular Medicine, University of Dundee

08:30	**Registration & Exhibition** The Hub / Melville Hall
09:30	**Welcome**
	Session 4: Heart Failure - Dilemmas in Cardiovascular Practice
09:35	**Systolic Heart Failure** Dr Ify Mordi, Clinical Senior Lecturer/Honorary Consultant, University of Dundee
09:55	**Heart Failure with Preserved Ejection Fraction** Dr Ify Mordi, Clinical Senior Lecturer/Honorary Consultant, University of Dundee
10:15	**Takutsubo Cardiomyopathy** Dr Hilal Khan, Complex PCI and CTO Fellow, Freeman Hospital, Newcastle
10:35	**SHARP Prize Presentation** **Dynamic kidney function changes and acute kidney injury as determinants of cardiovascular mortality: a population-based data-linkage study** Dr Peter Gallacher, Clinical Research Fellow and Academic GP, University of Edinburgh

All sponsors are acknowledged at the end of the programme.

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Refreshment Break & Exhibition

Time: 10:45 - 11:15
Room: Melville Hall

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Friday's Workshops

Time: **11:15 - 12:45**

Please make sure to attend your assigned workshop, as indicated on your delegate badge. Space in the workshops is limited, so it's essential to stick to your assigned group. Each workshop will last 40 minutes, and you will have the opportunity to attend three workshops.

01

CVD Prevention in the frail patient

Professor Terry Quinn, David Cargill Chair in Geriatric Medicine
University of Glasgow

Room: TBC

02

CVD Quality Prescribing guide - Diabetes and Obesity

Professor Brian Kennon, Consultant Diabetologist
CVD Prevention Scottish Government

Room: TBC

03

CVD Quality Prescribing guide - Hypertension

Professor Mary Joan MacLeod, SHARP Chair & Consultant
NHS Grampian

Room: TBC

04

CVD Quality Prescribing guide - Lipids

Miss Nichola Shaw, Lead Pharmacist, Cardiology and Acute Medicine,
Raigmore Hospital, NHS Highland

Mr Paul Forsyth, Consultant Pharmacist- Cardiology
NHS Golden Jubilee & NHS GGC

Dr Jonathan Malo, Consultant Chemical Pathologist
Royal Infirmary Edinburgh

Room: TBC

05

CPR

Mr John Ramsay, Resuscitation Officer
University of Dundee

Room: TBC

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Lunch & Exhibition

Time: 12:45 - 14:00
Room: Meikle Restaurant & Melville Hall

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Friday afternoon programme

Session 5: Dilemmas in who to treat

Time: 14:00 - 15:40
Room: Melville Hall

Chair: Professor Mary Joan MacLeod, SHARP Chair & Consultant, NHS Grampian

14:00 **SHARP Prize Awards**

Session 5: Dilemmas in who to treat

14:10 **What do we do about incidental cerebral small vessel disease?**
Dr Fergus Doubal, Honorary Reader and Consultant Stroke Physician
University of Edinburgh / Royal Infirmary of Edinburgh

14:30 **The interactions between brain health and frailty**
Professor Terry Quinn, David Cargill Chair in Geriatric Medicine
University of Glasgow

14:50 **ASSIGN v2.0 - An update to Scotland's CVD risk calculator**
Dr Dorien Kimenai, BHF Intermediate Research Fellow
University of Edinburgh

15:10 **Proteinuria and CVD Prevention**
Dr Robert Hunter, Honorary Consultant in Renal Medicine
University of Edinburgh / NHS Lothian

15:30 **Closing Remarks & Adjourn**

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SHARP Studentships

These talented students embarked on their research projects this summer, and we were excited to see their contributions to advancing cardiovascular health. We appreciate it if you take the time to view their work and engage with them.

Robbie Leslie

University of Glasgow

Weight and sex differences in NTproBNP: do they matter in clinical practice?

Jan Oskar Panek

University of Edinburgh

Deep neural networks for the diagnosis of acute myocardial infarction using ECG reports and clinical features.

Karma Patel

University of Dundee

Making cardiovascular clinical trials more environmentally sustainable

Yashika Relan

University of Dundee

Repurposing SGLT2-inhibitors and GLP1-agonists to reduce cardiovascular mortality in type 2 diabetic patients with moderate aortic stenosis

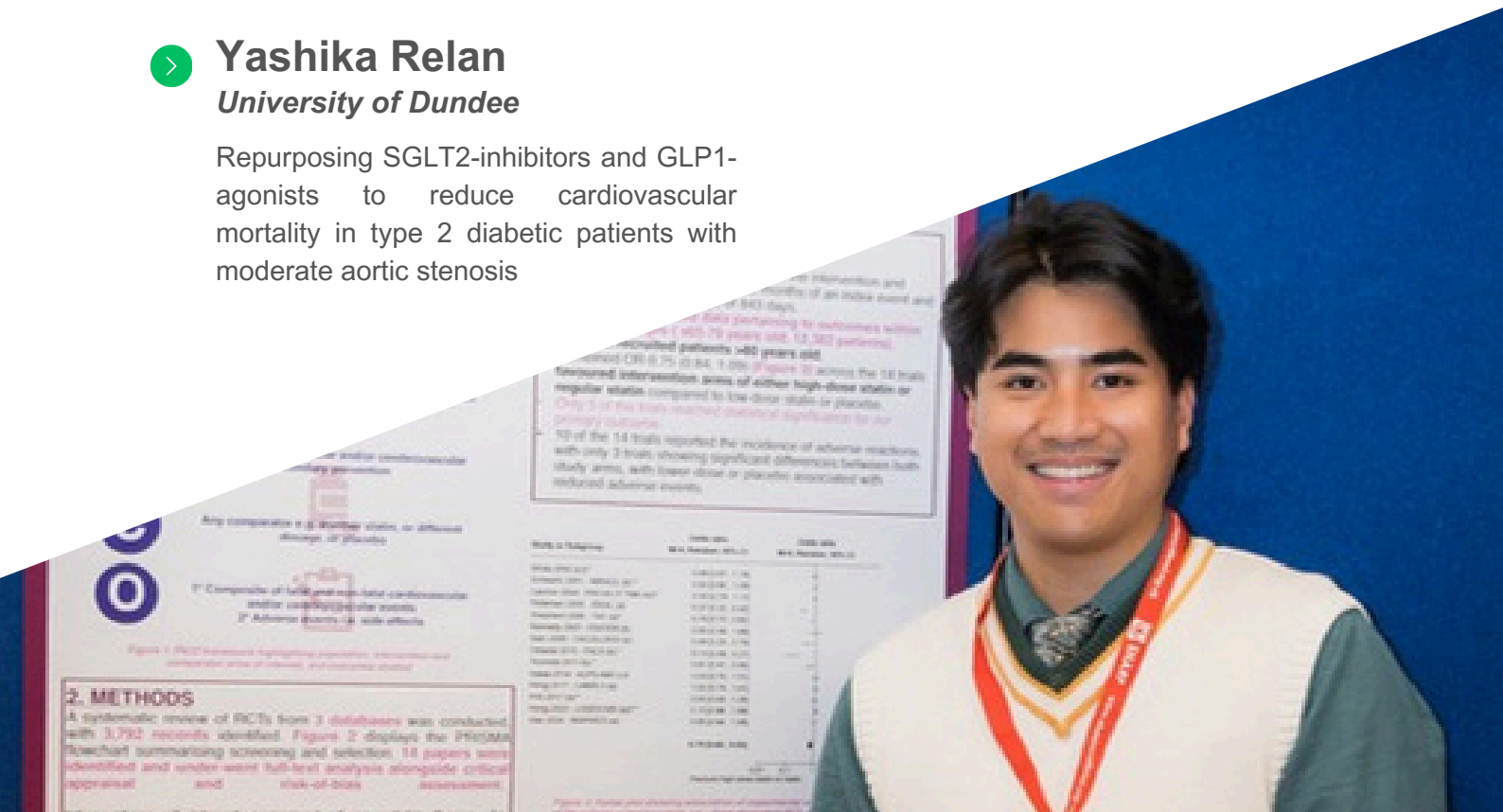
Chris Ferguson Summer Studentship

Shraddha Meti

University of Glasgow

Quantification of Epicardial Fat Volume in Patients with MINOCA or Type 2 Myocardial Infarction using MRI: Is there an association with the mechanism of myocardial damage, systemic inflammation and severity of coronary artery disease?

This studentship was supported by a generous donation from the Ferguson family in memory of the late Chris Ferguson.



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SHARP Prize Abstracts

These posters are all in the running to win the Best Poster and Oral Prize, with £300 awarded to the winners to support their educational pursuits and further their research endeavours.

Title:	Impact of Maternal Gestational Diabetes on Blood Pressure in the Offspring
Authors:	Niranjana Balamurugan, Mary J MacLeod
Affiliations:	University of Aberdeen

Introduction: Childhood hypertension is an emerging global health concern and a predictor of adult cardiovascular disease. Gestational diabetes mellitus (GDM), affecting 7–14 % of pregnancies worldwide, exposes the foetus to chronic hyperglycaemia and hyperinsulinemia, which may programme later cardiovascular risk. We systematically reviewed observational evidence linking maternal GDM with elevated blood pressure or hypertension in offspring.

Methods: Following PRISMA guidelines, Ovid MEDLINE and Embase were searched (Jan 2000 to June 2025). Cohort, case–control, or cross-sectional designs reporting offspring blood pressure or hypertension (≤18 years) after in-utero exposure to GDM and published in English were included. Two reviewers independently screened records and extracted data in Rayyan, assessing quality with the Newcastle–Ottawa Scale and CASP checklist.

Results: From 1,256 records, 483 duplicates were removed and 773 titles/abstracts screened; 12 full texts assessed, and six studies (≈25,000 mother–child pairs) met inclusion criteria. Populations spanned New Zealand, the United States, China, and Portugal, with offspring follow-up from 2 to 18 years. Five studies reported significantly higher mean systolic blood pressure in GDM-exposed children (adjusted mean differences 1.2–4.9 mmHg). Two demonstrated increased odds of clinically defined hypertension (odds ratios 1.3–1.8). Most associations persisted after adjustment for maternal BMI and socioeconomic factors.

Conclusion: Evidence indicates that prenatal exposure to maternal GDM is associated with modest but clinically relevant increases in childhood blood pressure. Early cardiovascular surveillance of GDM-exposed offspring and optimisation of maternal glycaemic control during pregnancy may help reduce long-term cardiovascular risk.

SHARP Prize Abstracts

Title:	Study Design: Examining the effect of heavy menstrual bleeding on cardiovascular outcomes
Authors:	Thulani Ashcroft[1], Marie de Bakker[2], Sobha Singh[3], Marianne Watters5, Peter Gallagher[1], Paul Wels[h4], Naveed Sattar[4], Atul Anand[1], Jacqueline A Maybin[5], Dorien M Kimenai[2]
Affiliations:	[1]Institute for Neuroscience and Cardiovascular Research, University of Edinburgh, Edinburgh, UK [2]Usher Institute, Usher Building, University of Edinburgh, Edinburgh, UK [3]Royal Devon University Hospitals NHS Foundation Trust, Exeter, UK [4]School of Cardiovascular and Metabolic Health, University of Glasgow, Glasgow, UK [5]Centre for Reproductive Health, Institute for Regeneration and Repair, University of Edinburgh, Edinburgh, UK

Introduction: Despite heavy menstrual bleeding (HMB) affecting one in three women, it's impact on cardiovascular disease (CVD) risk remains underexplored. Importantly, public and patient involvement (PPI) work with the PPI group Flow Right highlighted that women consider it important to understand the potential cardiovascular implications of HMB. Therefore, our study aims to advance understanding of the effect of HMB on CVD outcomes.

Study Design & Methods: This longitudinal cohort study will use linked routine healthcare data from females aged 18 to 50 in NHS Lothian and consists of two parts (see study flowchart, Figure 1). Part A will include females with HMB managed surgically via endometrial ablation and/or hysterectomy with ovarian conservation, and a comparison group without HMB undergoing laparoscopic sterilization (01/01/1995 – 30/04/2023). Part B will involve females with HMB managed with intermittent tranexamic acid and a comparison group without HMB using a copper intrauterine device (30/04/2009 – 30/04/2023). We will employ a doubly robust method combining inverse probability weighting with Cox regression modelling to evaluate the association between HMB and the primary outcome. The primary outcome will be a composite endpoint of non-fatal myocardial infarction, non-fatal stroke or cardiovascular death. Covariates in the model will be informed by a Directed Acyclic Graph, a commonly applied method to guide variable selection in epidemiological research. Public and patient involvement through Flow Right will remain integral throughout our study.

Conclusion: This study will provide novel insights into whether HMB should be considered in CVD risk assessment strategies for females.

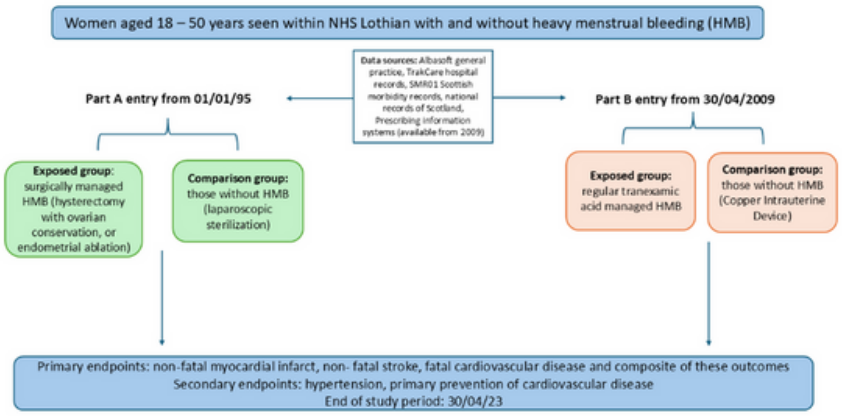

Figure 1 study flowchart

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SHARP Prize Abstracts

Title:	Statins for secondary prevention in abdominal aortic aneurysm (AAA) patients. Are we following the guidelines?
Authors:	Marina Bishay, Jeffrey Huang, Graeme Guthrie Anna Maria Choy
Affiliations:	Ninewells Hospital, University of Dundee Medical School

Introduction: Atherosclerotic aortic disease (AAD) is highly prevalent and associated with increased cardiovascular (CV) mortality and morbidity, therefore, intensive preventive strategies are needed. Those patients are usually inadequately managed compared with patients with CAD. Low-density lipoprotein cholesterol (LDL-C) is an important factor in atherosclerosis and intensive cholesterol lowering reduces major cardiovascular events by an additional 15% beyond what is achieved with less intensive cholesterol lowering. Recent ESC and NICE guidelines recommend intensive lipid lowering therapy in patients with AAD to reduce CV risk and to reduce progression and rupture. Our study was to evaluate lipid lowering therapy prescription in stable patients with known ADD screened for (AAA) in Ninewells Hospital Tayside.

Methods: Data from 50 consecutive patients attending for AAA surveillance doppler ultrasounds scans was reviewed for demographics, cardiovascular comorbidly and lipid lowering therapy.

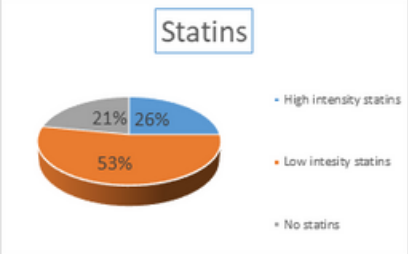
Results:

- 36(72%) of the patients were male. The mean age for male and females was 77.3yrs and 76.6yrs respectively. Mean AAA diameter was 37.9 and 36.8.
- The majority were on statin (41,82%), but only 13 were on intensive statin therapy with atorvastatin 80mg, 53% (n= 28) were on low intensity statins or other cholesterol lowering medications. (Figure1).
- Third of patients had concomitant CVD,22%(n=11) had a diagnosis of T2DM, 42%(n=21) had a diagnosis of hypertension, and 78%(n=39) were smokers (Table1)
- Average total cholesterol was 3.99 in patients on high intensity statins while 4.2 in patients on other statins.

(Table1) Demographic data

	♂	♀
Sex	72%(n=36)	28%(n=14)
Average aneurysm size	37.9	36.8
Diabetes	22%(n=11)	
HTN	42%(n=21)	
Smoking	78%(n=39)	

(Figure1) Pie chart of statins used



Conclusion:
Our study suggests that in Tayside, patients with AAA have significant CV co-morbidity .Lipid lowering therapy is prescribed in majority of patients. Average total cholesterol level was lower in patients established on high intensity statins.

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SHARP Prize Abstracts

Title:	Investigating Adherence to Monitoring Guidelines for Patients on First Line DOACs with CKD at Pitcairn Practice
Authors:	Lily Brodnax-Bell, Alex Barnfield & Michael Vicary
Affiliations:	ScotGEM, University of St Andrews

Introduction: Apixaban and edoxaban are first-line Direct Oral Anticoagulants (DOACs) indicated for stroke prevention in non-valvular atrial fibrillation and treatment of DVT and Pulmonary Embolism. Monitoring renal function in patients with chronic kidney disease (CKD) on DOACs is essential, as impaired renal clearance increases bleeding risk. The two conditions often go hand in hand. Despite reported national increases in monitoring in recent years, gaps remain, and it is important to close them.

Methods: We conducted an audit at a GP practice in rural Fife to assess adherence to monitoring guidelines for patients with CKD on DOACs. Using EMIS, data were collected for 27 edoxaban and 16 apixaban patients. After exclusions, 25 patients were analysed to assess adherence with monitoring guidelines, particularly in relation to renal function. Adherence was defined as serum creatinine measurement within 6 months from data collection. Based on national guidelines, literature review, and a previous audit, we set a standard of 75%.

Results: The practice exceeded the audit target of 75% adherence, with an overall adherence rate of 79.3% (78.6% in the edoxaban cohort and 80% in the apixaban cohort).

Conclusion: To achieve a higher standard of 95% adherence, recommendations include:

- Introducing formal DOAC-CKD review appointments.
- Conducting regular re-audits to maintain high adherence and patient safety.
- Establishing a DOAC-CKD register and implementing automated pop-up alerts.
- Enhancing patient education on the importance of DOAC monitoring.
- Sending mass invitations to patients to encourage regular reviews.

These measures aim to enhance patient safety, optimize DOAC-CKD management, and align the practice with national monitoring guidelines.

SHARP Prize Abstracts

Title:	Cascade testing for Lp(a) in NHS Highland
Authors:	Rosemary E. J. Clarke, Nichola M. Shaw
Affiliations:	Lipid Clinic, Raigmore Hospital, NHS Highland

Introduction: 'HEART UK consensus statement on Lipoprotein(a): A call to action' advises 'Serum Lipoprotein(a) levels should be measured in those with: b) first degree relatives with raised serum Lp(a) levels (> 200 nmol/L)'. Lp(a) is measured in mg/dL in NHS Scotland; 90 mg/dL approximates to 200 nmol/L. There is currently no genetic support within the NHS for this cascade testing which is not carried out anywhere else in Scotland.

Methods: Over period January 2021 - June 2024, 28 patients with Lp(a) > 90mg/dL under the care of our lipid clinic were given letters to pass to their first degree relatives about Lp(a) testing.

Any GP referring to our lipid clinic saying their patient had one of these letters had their referral accepted.

Results: 22 patients presented for cascade testing. 5 unknown what relative caused query; all Lp(a) <90 mg/dL. The remaining 17 patients are shown in table below:

Index Lp(a) mg/dL	Relative Lp(a) mg/dL	Relative Lp(a) mg/dL	Relative Lp(a) mg/dL
94.6	16.6		
97	34.2	113.5	
100.9	43.7	48.6	
101.9	80.8	54.7	
119.2	89.4	71.2	68.9
135	73.6		
155.7	127.8	98.9	196.6
178.4	141.2		
200.3	89.2	40.2	

Conclusion: This represented a large workload for lipid clinic with just 5 patients identified. Only four of these were new to lipid clinic service.

This work will form part of the SCBN lipid subgroup discussions around consensus Lp(a) management across Scotland.

SHARP Prize Abstracts

Title:	Long-term Testosterone Therapy and Cardiovascular Risk in Ageing Men: A Population-based Cohort Analysis
Authors:	Paul J Connelly, Samuel Owusu Achiaw, Jocelyn M Friday, Frederick K Ho, Claudia Geue, Sandosh Padmanabhan, Jill P Pell, Daniel Mackay, Ruth Dundas, Tran QB Tran, Denise Brown, Claire Hastie, Michael Fleming, Alan Stevenson, Clea du Toit, Jim Lewsey, Christian Delles
Affiliations:	University of Glasgow; Queen Elizabeth University Hospital, Glasgow; NHS Greater Glasgow & Clyde

Introduction:

Testosterone therapy is widely prescribed for hypogonadism, yet concerns remain regarding long-term cardiovascular safety. Randomised controlled trials provide reassurance over short- to medium-term follow-up, but evidence from prolonged real-world use is limited.

Methods:

We conducted a retrospective cohort study using linked health records from NHS Greater Glasgow & Clyde. Men aged ≥50 years in 2012 were included. Testosterone exposure was defined as at least a two-year interval between first and last prescription during 2012–2016. Participants were followed from 2017–2022 for a first major adverse cardiovascular event (MACE: myocardial infarction, stroke, unstable angina, heart failure, or cardiovascular death). Cox proportional hazards models adjusted for demographic, socioeconomic, and clinical factors.

Results:

The cohort comprised 440 testosterone-exposed and 136,051 unexposed men. During follow-up, 56 (12.7%) exposed and 11,662 (8.6%) unexposed individuals experienced a MACE. Exposed men had a higher baseline prevalence of comorbidities, including diabetes, hypertension, renal disease, and malignancy. After adjustment for these and other covariates, testosterone exposure remained associated with an increased risk of MACE (HR 1.55; 95% CI 1.19–2.01).

Conclusion:

In this large, population-based study, long-term testosterone therapy was associated with elevated cardiovascular risk, persisting after adjustment for baseline demographics and comorbidities. These findings emphasise the importance of careful risk assessment, rigorous monitoring, and further research to clarify the long-term safety profile of testosterone therapy.

SHARP Prize Abstracts

Title:	Inequalities in the provision of guideline-directed medical therapy following myocardial infarction: a cohort study
Authors:	Marie de Bakker*[1], Fiona McLachlan*[1], Cesario Pancinha[1], Thomas M Caparrotta[1,2], Caroline Jackson[3], Thulani Ashcroft[1], Atul Anand[1], Peter J Gallacher[1], Eve Miller-Hodges[1,4], David Yeung[1], Neeraj Dhaun[1,4,] Chris Tuck[1], Nicholas L Mills[1,3], Dorien M Kimenai[1]. * Contributed equally
Affiliations:	[1]British Heart Foundation Centre for Cardiovascular Science, University of Edinburgh, United Kingdom [2]Clinical Pharmacology Unit and Research Centre, University of Edinburgh, United Kingdom [3]Usher Institute, University of Edinburgh, Edinburgh, United Kingdom [4]Department of Renal Medicine, Royal Infirmary of Edinburgh, Edinburgh, United Kingdom

Introduction:

Following myocardial infarction, secondary preventative medication is recommended to reduce residual cardiovascular risk and prevent future cardiovascular events. Insights into the trends of guideline-directed medical therapy provision by sex, age, ethnicity, and socioeconomic deprivation status may help identify opportunities to reduce inequalities in post-myocardial infarction care.

Methods:

This cohort study using linked routine healthcare data included patients with myocardial infarction in South-East Scotland (1 April 2009 to 1 August 2021). Multivariable logistic regression models with a generalized estimating equation approach were used to assess the association between each sociodemographic factor and the provision of three guideline-directed medical therapies (anti-platelet or anti-thrombotic agent, lipid-lowering therapy and renin-angiotensin system blocker) at
3-, 12-, and 18-months post-discharge.

Results:

The study population comprised 7,926 patients (35% female, mean age 65 [SD 13] years). At 3 months, 5,393 (68%) patients were receiving all three guideline-directed medical therapies (Figure 1). Women (adjusted odds ratio at 3 months [aOR 0.69, 95%CI 0.62 to 0.77]) and patients <50 years (aOR 0.77, 95%CI 0.65 to 0.89) and >70 years (aOR 0.58, 95%CI 0.51 to 0.65) were less likely to be receiving all three guideline-directed medical therapies at 3 months with similar observations at 12 and 18 months (Figure 2). No differences were observed by ethnicity and socioeconomic groups.

SHARP Prize Abstracts

Title:	Inequalities in the provision of guideline-directed medical therapy following myocardial infarction: a cohort study **continued...**

Conclusion:

Women, and both younger and older patients are less likely to be receiving guideline-directed medical therapy following myocardial infarction. Targeted strategies to increase the provision of secondary prevention are needed to reduce inequalities and improve post-myocardial infarction care.

Figure 1. Proportion of patients with myocardial infarction by guideline-directed medical therapy status at 3, 12 and 18 months. Guideline-directed medical therapy includes anti-platelet or anti-thrombotic agents, lipid-lowering therapy (statin and non-statins [ezetimibe or PCSK9 inhibitor]), and renin-angiotensin aldosterone blockers (angiotensin converting enzyme inhibitors or angiotensin receptor blockers).

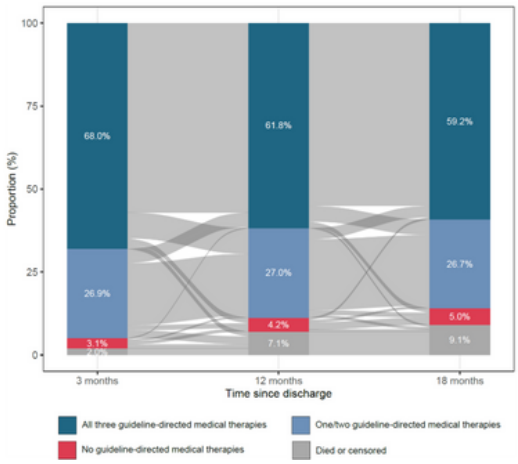

Figure 1

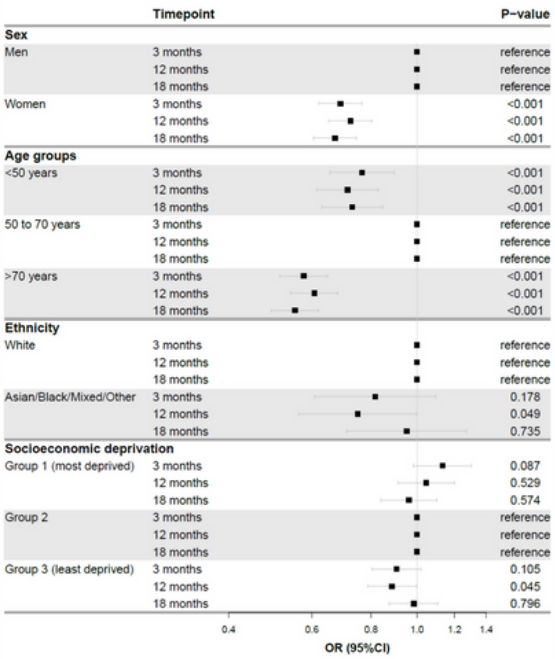

Figure 2

Figure 2. Adjusted odds ratios and their 95% confidence intervals of the association between sociodemographic factors and provision of three guideline-directed medical therapies (versus one/two or no therapy, reference category) at 3, 12 and 18 months. Models were adjusted for sex, age, ethnicity, socioeconomic deprivation, and frailty. Abbreviations: OR, odds ratio; CI, confidence interval.

SHARP Prize Abstracts

Title:	Total cholesterol trajectories following type 2 diabetes diagnosis, in people with versus without severe mental illness
Authors:	Kelly Fleetwood (presenting author)[1], Harry Campbell1, Fiona Gaughran[2], Khalida Ismail[2], Sarah Wild[1], Caroline Jackson[1]
Affiliations:	1. Usher Institute, University of Edinburgh 2. Institute of Psychiatry, Psychology & Neuroscience, King's College London

Introduction:

Type 2 diabetes (T2D) outcomes are poorer in people with severe mental illness (SMI). We compared how total cholesterol levels change over time from T2D diagnosis in people with versus without SMI.

Methods:

We included adults with T2D (2004-2021) from the Scottish diabetes register, ascertaining pre-existing SMI (schizophrenia, bipolar disorder or major depression) from hospital records. We used mixed effects models to compare total cholesterol levels over time in people with versus without SMI, adjusting for age at diabetes diagnosis, sex, deprivation and year of diabetes diagnosis.

Results:

Among 320,351 people with diabetes, 1.0% had schizophrenia, 0.5% bipolar disorder and 3.1% major depression. In the year following T2D diagnosis, median [interquartile range] total cholesterol was higher for people with schizophrenia (4.95 [4.20, 5.80] mmol/l), bipolar disorder (5.00 [4.20, 5.80]) or major depression (4.80 [4.10, 5.70]) versus no SMI (4.70 [4.00, 5.45]). During median 8.3 years follow-up, average cholesterol reduced in all groups, improving fastest in those with SMI, with 10-year reductions of 16.5% (95% CI: 15.7%, 17.3%) for schizophrenia, 15.7% (14.4%, 17.0%) for bipolar disorder, 13.7% (13.2%, 14.3%) for depression and 12.2% (12.1%, 12.3%) for no SMI.

Conclusion:

Although people with SMI initially had higher average total cholesterol, cholesterol reduced at a faster rate, and reached similar average levels to those without SMI within 8 years post diabetes diagnosis. Next, we will conduct group-based trajectory modelling to identify subgroups of people with similar cholesterol patterns over time, explore whether SMI is associated with less favourable patterns and investigate the role of statin prescribing.

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Scottish Lipid Forum

SHARP Prize Abstracts

Title:	Dynamic kidney function changes and acute kidney injury as determinants of cardiovascular mortality: a population-based data-linkage study
Authors:	Peter J. Gallacher,[1] David Yeung,[1] Eve Miller-Hodges,[1,2] Gavin B Chapman, [1,2] Marie de Bakker,[1] Dorien M. Kimenai,[1] Robert W. Hunter,[1,2] Samira Bell,[3,4] Neeraj Dhaun[1,2]
Affiliations:	[1]Institute for Neuroscience & Cardiovascular Research, University of Edinburgh, UK [2] Department of Renal Medicine, Royal Infirmary of Edinburgh, UK [3]Division of Population Health and Genomics, University of Dundee, UK [4]Scottish Renal Registry, Scottish Health Audits, Public Health Scotland, UK

Introduction:

Chronic kidney disease (CKD) is strongly associated with cardiovascular disease (CVD). However, this relationship has yet to be evaluated utilizing longitudinal kidney function and AKI data. We aimed to evaluate how kidney function trajectory and AKI modify CVD risk following incident myocardial infarction (MI), heart failure (HF), and stroke.

Methods:

Patients aged ≥18years who underwent kidney function testing, were not on dialysis, and were hospitalized with incident MI, HF, or stroke 01/01/2006-30/04/2020 were included in this retrospective, regional data-linkage study. We evaluated the impact of post-event eGFR value and slope, and AKI on the primary outcome of cardiovascular death.

Results:

There were 13,141 patients with incident MI (69±13years, 36.4%women, 4.7%eGFR <60ml/min/1.73m2), 10,595 with incident HF (75±12years, 46.0%women, 44.8%eGFR <60ml/min/1.73m2), and 9,838 with incident stroke (72±13years, 49.9%women, 29.6%eGFR <60ml/min/1.73m2). Post-event eGFR value and slope associated independently with CVD death in patients with incident MI and HF, but not stroke. For example, in patients with an eGFR <30mL/min/1.73m2, risk of CVD death increased by 25% (adjusted Hazard Ratio [aHR] 1.25, 95%CI 1.13-1.37,P<0.001) and 21% (aHR 1.21, 95%CI 1.10-1.32,P<0.001) in patients with MI and HF, respectively, for every 2.5 mL/min/1.73m2per year reduction in eGFR slope. Similarly, AKI portended a poorer prognosis in patients with MI and HF only, with the strongest associations observed in patients with normal kidney function. For example, AKI at time of MI doubled risk of CVD death in patients with an eGFR ≥90mL/min/1.73m2 (aHR 2.11, 95%CI 1.46-2.97,P<0.001) versus a ~50% increased risk in patients with an eGFR <30mL/min/1.73m2 (aHR 1.52, 95%CI 1.12-2.05,P=0.005).

Conclusion:

Following MI and HF, but not stroke, kidney function slope and AKI independently associated with risk of CVD death. These findings illustrate the prognostic importance of dynamic changes in kidney function and AKI when estimating CVD risk.

SHARP Prize Abstracts

Title:	PHLEB YEH! A Quality Improvement Project to Streamline Phlebotomy Services in Primary Care
Authors:	Megan Goode, Molly Kitson, Robbie Turner, William Walsh
Affiliations:	Scottish Graduate Entry Medicine, University of St Andrews

Introduction:

Airlie Medical Practice, Fife, serves a socioeconomically deprived population where access to an effective phlebotomy service is essential for diagnosis and chronic disease management. Practice staff identified inefficiencies within the phlebotomy service with appointments overrunning, requests not being on the system and long waits for appointments. A quality improvement project (QIP) was undertaken to streamline the phlebotomy system by reducing the percentage of delayed phlebotomy appointments by 10% and increasing the percentage of correct phlebotomy requests by 10%.

Methods:

Stakeholder engagement, process mapping and driver diagrams were utilised to analyse the barriers to an efficient phlebotomy service. Two Plan-Do-Study-Act cycles were undertaken. Cycle 1 introduced a protocol for requesting bloods via EMIS and Cyberlab. Cycle 2 reinforced this protocol with a coffee morning and poster campaign.

Data collection through EMIS and DOCMAN took place, focusing on appointment duration, accuracy of requests and the method of requesting.

Results:

Following cycle 1, delayed appointments decreased by 24%, correct documentation improved by 21% and appropriate Cyberlab use increased by 24%. In cycle 2, delayed appointments decreased by 5% but correct requests remained unchanged. Staff perceptions of the phlebotomy service increased from 3.8/5 to 4.7/5.

Conclusion:

Clear protocols and targeted practice staff engagement improved the efficiency and streamlined the phlebotomy service. While some factors may not ever be able to be controlled (such as vein difficulty), this QIP showed that simple, practice level interventions can streamline phlebotomy services which are vital for chronic disease management.

SHARP Prize Abstracts

Title:	Improving Adherence to Glucose Monitoring and Follow-Up Among Diabetic Patients in a Lithuanian Regional Town Using the Three Days and Seven Dots Method
Authors:	Jurate Gudonyte[1], Irena Zukauskaite[2], Anastasija Levkina[1], Kasparas Zdancius[3], Antanas Norkus[4]
Affiliations:	[1] Vilnius University, Faculty of Medicine, Institute of Biomedical Sciences, Pharmacy and Pharmacology Center, Vilnius, Lithuania [2]Vilnius University, Faculty of Philosophy, Institute of Psychology, Vilnius, Lithuania; [3]Vilnius University, Faculty of Medicine, Vilnius, Lithuania; [4]Trakai hospital, Trakai, Lithuania

Introduction:

Many diabetic patients (DP) in primary care (PC), particularly in rural areas and small towns, rely on capillary glucose testing. Limited access to specialist care and insufficient support from the care team can reduce motivation and self-management, impairing glycemic control.

Methods:

Five general practitioners (GPs) from Svencioneliai (population of 4,748 (2021)), Lithuania, participated in the study. Each GP was instructed to train their DP in the Three Days Seven Dots (3/7) method for home-based capillary glucose self-assessed glycemic control (SAGLIC). DPs were asked to document their results and present them during subsequent routine consultations, but no more frequently than once per month. GPs received bi-monthly consultations from the scientific team throughout the 4-month study. A total of 119 DPs (80 women and 39 men) were invited to participate in the study. Among those who consented, 15 did not submit their 3/7 results, and 27 provided only initial assessments. Nine DPs participated twice, two - three times, and 55 - 37 women (mean age 62.27 years) and 18 men (mean age 55.5 years)- submitted data across four visits. The analysis in this study is based on this latter group. 48 had diagnosed type 2 diabetes, 4 - type 1 diabetes, and 3 did not specify their diabetes type.

Results:

Results (mean values) across different measurement points (N = 55) are presented in table 1.
Individual measurement variability during three-day monitoring (Maximum Value – Minimum Value) is presented in table2.

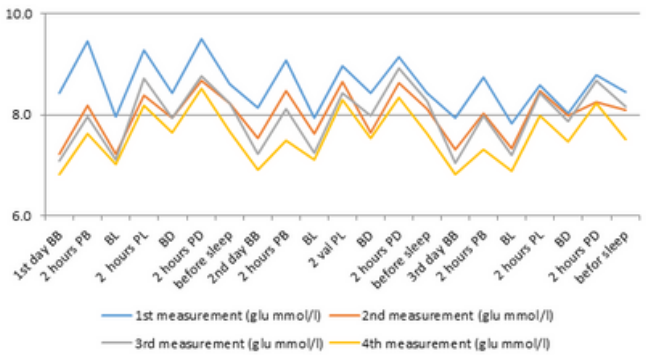


Table 1. Mean Values Across Different Measurement Points (N = 55).
BB-before breakfast; PB-post breakfast; BL-before lunch; PL- post lunch; BD-before dinner; PD-post dinner

SHARP Prize Abstracts

Title:	Improving Adherence to Glucose Monitoring and Follow-Up Among Diabetic Patients in a Lithuanian Regional Town Using the Three Days and Seven Dots Method continued...

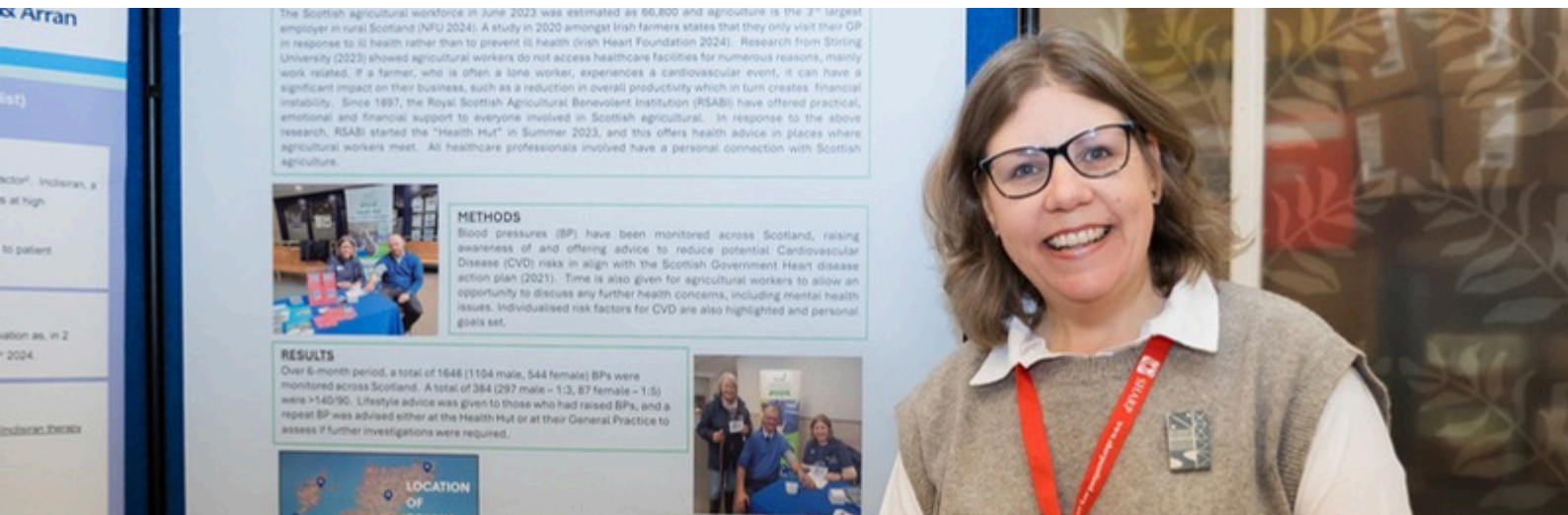
Results:

Table 2. Mean ± Standard Deviation and P-values for Pairwise Comparisons Between Measurement Groups (N = 55); Note: P-values represent statistical significance of differences between measurement groups using pairwise comparisons. "—" indicates no comparison was made.

Measurement Group	M ± SD	P-values for Pairwise Comparisons Between Measurement Groups		
		vs.2nd measurement	vs.3rd measurement	vs.4th measurement
1st measurement	5.62±3.22	.086	.070	<.001
2nd measurement	4.85±2.79	-	.884	.004
3rd measurement	4.90±2.37		-	<.001
4th measurement	3.82±1.86			-

Conclusion:

Conclusion: SAGLIC, supported by regular GP encouragement and treatment adjustments, reduces blood glucose levels and variability in PC.



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Scottish Lipid Forum

SHARP Prize Abstracts

Title:	Non-HDL-C targets in raised Lipoprotein(a) – are they realistic?
Authors:	Dr Andrew Hopper, Dr Christina Kanonidou, Dr Colleen Ross, Mr Jonathan Strachan
Affiliations:	NHS

Introduction:

Lipoprotein(a) (Lp(a)) is a heritable, atherogenic low density lipoprotein particle, blood levels of which are causally associated with MACE outcomes including myocardial infarction, ischaemic stroke and heart failure (1). There is currently no targeted treatment for lowering Lp(a) and approaches to raised levels centre around optimal management of modifiable cardiovascular risk factors including non-HDL-C/LDL-C. HEART UK consensus statement (2019) on Lp(a) recommends target non-HDL-C for those with raised Lp(a) (>90nmol/L) of <2.5mmol/L (2). This audit examines current clinical practice against this standard from two specialist lipid clinics.

Methods:

- We conducted a retrospective audit from 06/06/2022 to 06/06/2025.
- Lp(a) was measured using Alinity c Lp(a) assay.
- Data on Lp(a) requests, lipid profiles and treatment was gathered from LIMS (Telepath)/electronic medical records.
- Patients with Lp(a) >100mg/dL, which broadly correlates with higher CVD risk, were selected for further analysis.

Results:

- N=42 patients had Lp(a) >100mg/dL. (Primary Prevention; n= 29, Secondary Prevention; n=13)
- Mean non-HDL-C around time of Lp(a) test was 4.8mmol/L.
- 97.6% of patients required treatment intensification.
- Of these, 68% (n=28) had treatment regime intensified.
- 3/42 (7%) patients achieved non-HDL-C <2.5mmol/L.
- Mean non-HDL-C post treatment intensification (n=28) was 3.7mmol/L.

Conclusion:

While treatment intensification resulted in reduction in mean non-HDL-C, the majority of patients did not reach HEART UK target of <2.5mmol/L. Acknowledging the limitations in this small sample, this would suggest that current non-HDL-C treatment target recommendations for populations with raised Lp(a) are difficult to achieve in clinical practice. Contributory factors include limited treatment options available for primary prevention populations, tolerability issues with, and monitoring adherence to medication.

SHARP Prize Abstracts

Title:	Heart Failure in Type 1 vs Type 2 Diabetes Mellitus: Shared Pathways, Distinct Challenges
Authors:	Muhammad S Hussain [1], Saraswathi Iyer [1], Yi Jia Liew[1], Mya Lelt Win[1], Rory J McCrimmon[2], Chim C Lang MD [1], Ify R Mordi MD [1]
Affiliations:	1.Division of Cardiovascular research, University of Dundee, Dundee, Scotland, UK 2.Division of Diabetes, Endocrinology and Reproductive Biology, University of Dundee, Dundee, Scotland, UK

Introduction:

Heart failure (HF) affects over 64 million people globally and accounts for about 1 million NHS bed-days annually. Between 35–45% of individuals with diabetes also develop HF. People with type 1 diabetes (T1D) carry a threefold greater risk of developing HF than the general population. They also experience hospitalisation nearly two decades earlier than those with type 2 diabetes (T2D).Yet, the vast majority of trial evidence guiding HF management is derived from T2D, leaving T1D underrepresented.

Methods:

Narrative review of epidemiological studies, clinical registries,and major HF and diabetes outcome trials, focusing on differences between T1D and T2D in burden, mechanisms, outcomes, and therapy in relation to HF.

Results:

Diabetes notably worsens morbidity and mortality rates in HF. In T2D, HF is commonly associated to obesity, insulin resistance, and systemic inflammation, which predisposes to HF with preserved ejection fraction (HFpEF). In contrast, T1D is characterised by chronic hyperglycaemia, microvascular dysfunction, and potential autoimmune injury, contributing to earlier systolic impairment. Cardiac microvascular dysfunction is another crucial pathway in both types. Guideline-based therapies for HFrEF (RAAS-inhibitors,beta-blockers,MRAs,SGLT2-inhibitors) have proven consistent benefit in T2D, but people with T1D have been largely excluded from these studies. Early findings suggest sotagliflozin and finerenone may be promising, though safety concerns such as ketoacidosis risk continue to limit use in T1D.

SHARP Prize Abstracts

Title:	Heart Failure in Type 1 vs Type 2 Diabetes Mellitus: Shared Pathways, Distinct Challenges continued,,,,,

Conclusion:

As the range of therapies for HF grows, disparities in clinical outcomes continue to widen unless, people with T1D are deliberately included in research. This underlines the urgent need to produce high-quality, targeted evidence to guide timely treatment strategies for this population.

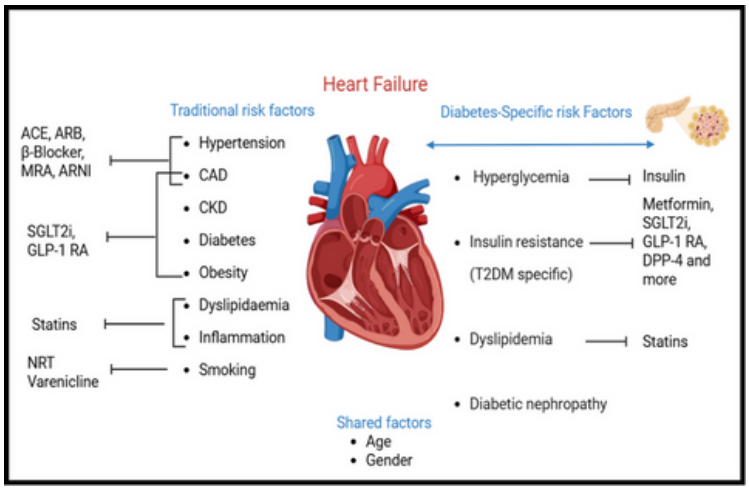

Figure 1: Heart Failure risk factors and diabetes specific risk factors with their therapeutic targets.

HF Subtype	No Diabetes	T2D	T1D
HFrEF (EF <40%)	ACEi/ARB/ARNI, BB, MRA, diuretics, ivabradine, SGLT2i (✓), GLP-1 RA (△ CV)	Same as no diabetes + SGLT2i (✓✓), GLP-1 RA (✓ CV)	ACEi/ARB, BB, MRA, diuretics; SGLT2i & GLP-1 RA ✗ (risk/DKA, no evidence)
HFmrEF (EF 40–49%)	ACEi/ARB, MRA, diuretics, BB (△), SGLT2i (△)	Same as no diabetes + SGLT2i (✓ HF benefit)	Standard HF Rx; SGLT2i ✗
HFpEF (EF ≥50%)	Diuretics, manage comorbidities, ACEi/ARB/MRA (△), SGLT2i (✓ recent)	Same as no diabetes + SGLT2i (✓✓), GLP-1 RA (△ obesity/CV)	Diuretics, comorbidity Rx; SGLT2i & GLP-1 RA ✗

Table 2: Summary of recommended pharmacologic treatments for heart failure subtypes (HFrEF, HFmrEF, HFpEF) by diabetes status. SGLT2 inhibitors and GLP-1 receptor agonists are strongly recommended in type 2 diabetes across all heart failure phenotypes due to cardiovascular benefits but are not recommended in type 1 diabetes because of safety concerns and limited evidence. Conventional therapies remain foundational for all groups.

✓ = Recommended ✓✓ = Strongly recommended △ = Consider ✗ = Not recommended

Abbreviations: ACEi = ACE inhibitor, ARB = Angiotensin receptor blocker, ARNI = Angiotensin receptor-neprilysin inhibitor, BB = Beta blocker, MRA = Mineralocorticoid receptor antagonist, GLT2i = Sodium-glucose co-transporter-2 inhibitor, GLP-1 RA = GLP-1 receptor agonist, and DKA = Diabetic ketoacidosis.

SHARP Prize Abstracts

Title:	Quantification of Epicardial Fat Volume (EFV) in Patients with MINOCA or Type 2 Myocardial Infarction using MRI: Is there an association with the mechanism of myocardial damage, systemic inflammation and severity of coronary artery disease?
Authors:	Shraddha Meti[1], Robert Sykes[1,2]
Affiliations:	[1]School of Cardiovascular and Metabolic Health, University of Glasgow, Glasgow, U.K [2]University Hospital Hairmyres, East Kilbride, South Lanarkshire, UK

Introduction:

Epicardial Fat Volume (EFV) is emerging as a cardiovascular biomarker linked to atrial fibrillation and heart failure. Its role in myocardial infarction and injury with no obstructive coronary artery disease (MINOCA) is unexplored. MINOCA accounts for 10-15% suspected acute coronary syndrome presentations, but its heterogenous pathophysiology creates substantial gaps in treatment and prognostic stratification.

Methods:

This retrospective study included pseudo-anonymised cardiac MRI data from 263 patients with MINOCA, drawn from the StratMed-MINOCA study. EFV was quantified using Circle cvi42 and indexed (EFVi) to body surface area by the Du Bois Formula. Relevant clinical data, including patient demographics and laboratory results were extracted from the clinical trial database. Associations between EFVi, MI endotype, coronary microvascular dysfunction markers and demographic data were assessed via univariate and multivariate regressions.

Results:

Mean EFVi was 37.8 ± 11.4 ml/m2, with no significant differences across diagnostic classifications or endotypes of MINOCA. EFVi positively correlated with increasing age (P = 0.006) and increasing Hba1c (P = 0.012), and worsening socioeconomic status (P = 0.023). EFVi showed no association with CFR, IMR or peak troponin ratio. Multivariate regression showed EFVi did not predict MI endotype, though female sex was linked to T2MI endotype (P = 0.016).

Conclusion:

No relationship between indexed epicardial fat volume and diagnostic classification or endotype of MINOCA was found. Instead, EFVi correlated with age, glycaemic status and deprivation, suggesting EFVi may reflect broader cardiometabolic risk rather than a direct marker of myocardial injury mechanisms.

SHARP Prize Abstracts

Title:	Deep learning for the diagnosis of acute myocardial infarction using ECG and clinical features
Authors:	Jan Oskar Panek[1], Kuan Ken Lee[1], Dimitrios Doudesis[1]
Affiliations:	[1] British Heart Foundation/University Centre for Cardiovascular Science, University of Edinburgh, Edinburgh, UK

Introduction:

Myocardial infarction (MI) accounts for over 100,000 hospital admissions each year in the UK.1 Previous work has shown promise in combining troponin with clinical variables in a machine learning model to diagnose MI.2 Advances in deep learning offer an opportunity to include multi-modal data such as electrocardiogram (ECG) routinely used in the Emergency Department.

Methods:

We developed a model combining troponin, clinical variables and ECG images to inform MI diagnosis at presentation. The model architecture combines an EfficientNetB3 model for processing ECGs with standardised clinical variables used as an input to a classification neural network. The model was trained on data from 11,666 patients presenting into the Emergency Department with suspected acute coronary syndrome in Scottish hospitals and internally validated on data from 2,916 patients. The rule-in/rule-out thresholds were selected using Youden's index.

Results:

In the validation cohort (MI prevalence, 7.4%), the model demonstrated high discrimination (area under the curve, 0.937; 95% confidence interval, 0.924-0.949; Fig. 1) and an area under the precision-recall curve of 0.612 (Fig. 2). It identified 85.5% of patients as low probability with a negative predictive value of 98% and sensitivity of 78%, while 14.5% of patients were identified as high probability with a positive predictive value of 40% and specificity of 91%.

Conclusion:

Incorporating ECG data along with clinical variables and troponin concentrations in a deep learning model offers a novel and individualised approach to diagnose MI with promising performance upon internal validation. This approach has the potential to reduce hospital waiting times and improve clinical outcomes.

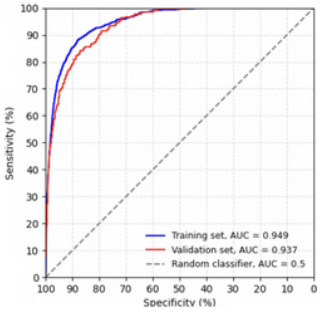

Figure 1: ROC Curves for training and validation sets

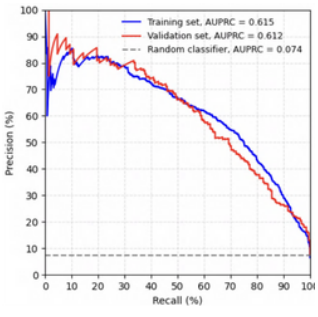

Figure 2: Precision-Recall Curves for training and validation sets

SHARP Prize Abstracts

Title:	Carbon Footprinting the ALL-HEART Study: Assessing the Environmental Impact of a Hybrid Clinical Trial Design using the Greener Trials Toolkit
Authors:	Karma Patel[1], Rebecca J. Barr[2], Amy Rogers[2], Isla S. Mackenzie[2], on behalf of the ALL-HEART study group
Affiliations:	1. Medical Student, University of Dundee. 2. MEMO Research, Division of Cardiovascular Research, School of Medicine, University of Dundee

Introduction:

Climate change is a major health threat. Healthcare is a large contributor of greenhouse gas emissions, including through research like clinical trials. The carbon footprint of clinical trials has been quantified before; however, it is unclear whether a hybrid decentralised trial design, where some trial activities take place off-site, is more sustainable. The ALL-HEART study1 (Allopurinol and cardiovascular outcomes in patients with ischaemic heart disease) serves as a model for this new design. This work aimed to quantify the carbon footprint of the ALL-HEART study using the Greener Trials CiCT tool, and to compare the results to conventional trials.

Methods:

A retrospective carbon footprint analysis was conducted. Activity data encompassing trial operations were collected from records and staff and entered into the Greener Trials calculation tool. The tool calculates emissions by multiplying each activity by its specific emission factor, providing a total carbon footprint in $kgCO_2e$. This total was compared against published data from conventional trials.

Results:

The operational trial phases constituted the primary source of emissions. The largest contributors were the energy consumption of the clinical trial unit (CTU) and data collection processes. The carbon footprint from drug manufacturing is pending final analysis.

Conclusion:

The emissions profile was dominated by the CTU and data collection. The shift to hybrid trials moves the carbon footprint from participant travel to central sources like digital infrastructure. This study demonstrates that hybrid models represent an opportunity for more sustainable clinical research, provided strategies are implemented to minimise the footprint of centralised operations.

Acknowledgements: The ALL-HEART study was funded by NIHR HTA (11/36/41). KP was supported by a SHARP summer studentship (2025) for this work.

Reference: Mackenzie IS et al, Lancet 2022; 400:1195-205.

SHARP Prize Abstracts

Title:	Effect of timed dosing of usual antihypertensives according to patient chronotype on cardiovascular outcomes: the Chronotype sub-study cohort of the Treatment in Morning versus Evening (TIME) study
Authors:	Filippo Pigazzani [a], ⋆ Kenneth A. Dyar [b], ⋆ Steve V. Morant a Céline Vetter [c] Amy Rogers a Robert W. V. Flynn [a] David A. Rorie a Isla S. Mackenzie [a] Francesco P. Cappuccio d Roberto Manfredini [e] and Thomas M. MacDonald [a]
Affiliations:	[a] MEMO Research, Division of Molecular and Clinical Medicine, University of Dundee, UK; [b]Metabolic Physiology, Institute for Diabetes and Cancer, Helmholtz Munich, German Research Center for Environmental Health, and German Center for Diabetes Research (DZD), 85764 Neuherberg, Germany; [c] University of Colorado at Boulder, Colorado, USA; [d] University of Warwick, Warwick Medical School, Sleep Health & Society Programme, Coventry, UK; [e] University Strategic Center for Studies on Gender Medicine, Department of Medical Sciences, University of Ferrara, Ferrara, Italy; *equal contribution and corresponding authors

Introduction:

Timing drug administration to circadian rhythms may enhance efficacy. We examined whether timing of antihypertensives by chronotype (a behavioural marker of circadian rhythm) influences outcomes.

Methods:

This was a sub-study of the Treatment in Morning versus Evening (TIME) study. Participants completed a validate questionnaire. Chronotype was assessed as mid sleep time on free days corrected for sleep debt on workdays (MSFsc). We analysed associations between chronotype and dosing time and explored their combined effect on cardiovascular outcomes (a composite endpoint of hospitalisation for non-fatal myocardial infarction (MI) or non-fatal stroke, and single components) using proportional hazard time-to-event models adjusted for baseline covariates.

Results:

5358 participants completed the questionnaire. Chronotype was distributed around a median MSFsc of 3:07 am. The composite endpoint increased for later MSFsc (later chronotype) dosed in the morning, but not in those dosed in the evening (HR 1.46 [95% CI 1.14-1.86] and 0.96 [95% CI 0.70-1.30] per hour of MSFsc; interaction p = 0.036). Later chronotype was associated with higher risk of non-fatal MI in the morning dosing group, and reduced risk in the evening dosing group (HR 1.62 [95% CI 1.18-2.22] and 0.66 [95% CI 0.44-1.00] per hour of MSFsc; interaction p < 0.001). No interaction between chronotype and dosing time was observed for stroke.

Conclusion:

Alignment of dosing time of antihypertensives with personal chronotype could lower the incidence of non-fatal MI compared to a 'misaligned' dosing time regimen. Future studies are warranted to establish whether synchronizing administration time of antihypertensive therapy with individual chronotype reduces risk of MI.

SHARP Prize Abstracts

Title:	Cardiovascular and metabolic risk management in renal transplant patients: are we lagging behind? Audit insights from the Edinburgh Transplant Centre
Authors:	Dr Simran Piya, Dr Catriona Macaulay, Dr Htet Htet Ei Khin, Dr Tineke Rennie, Dr Michaela Petrie
Affiliations:	Edinburgh Transplant Unit, NHS Lothian

Introduction:

Renal transplant patients have three times the risk of major adverse cardiovascular events than the general population (1,2). Prevalence of dyslipidaemia is high but underdiagnosed and undertreated after transplant (1-3). Transplant guidelines specify routine lipid monitoring and lipid-lowering therapy (4-6). The optimum target LDL for transplant patients is unclear. Local audit in 2021 showed only 44% had lipids checked and 33% received statins so local protocol was modified to check lipids at 3 months and annually.

Methods:

Practice was re-audited reviewing 121 patients who received a kidney transplant between 01/01/2023-31/12/2024. Patient data included demographics, primary renal disease, diabetes mellitus (DM), cardiovascular disease (CVD), eGFR, lipid results, prescription of lipid lowering therapy. ESC guidelines were used to determine patients' CVD risk category (7).

Results:

Median age 52 years, 65% male, median eGFR 49.3ml/min, 31% had DM (17% developed DM post-transplant), 9% had CVD. 38% had lipids checked by 90 days and 64/102 patients (63%) by 1 year. 31% were on statins before and 19% commenced statin after transplant. 91 patients (75%) were 'high risk', 30 (25%) 'very high risk' (LDL targets of <1.8 and <1.4, respectively). Only 67 patients (55%) had an LDL level checked after transplant, with a median level of 2.3 mmol/L (IQR 1.9-2.9).

Conclusion:

Despite protocol changes, our clinicians' practice lags behind guidelines.

SHARP Prize Abstracts

Title:	Rates and Risk Factors for Major Adverse Cardiovascular and Cerebrovascular Events after stroke due to intracerebral haemorrhage: systematic review and study-level meta-analysis
Authors:	Vega Putri[1,2], Neshika Samarasekera[1], Tom J Moullaali[1], Saketh Jampana[1], Rustam Al-Shahi Salman[1]
Affiliations:	[1]Institute for Neuroscience and Cardiovascular Research, The University of Edinburgh, Edinburgh, United Kingdom, [2]Deparment of Neurology, Universitas Gadjah Mada, Yogyakarta, Indonesia

Introduction:

Intracerebral haemorrhage (ICH) survivors are at increased risk of major adverse cardiovascular and cerebrovascular events (MACE) compared to population controls; however, little is known about the annual rates and risk factors for MACE.

Methods:

We systematically searched Medline, Embase, and trial registries for studies of MACE after ICH in April 2024. Eligible studies included randomised controlled trials and cohort studies of adults with ICH diagnosed after 2001 that reported MACE or ≥1 ischaemic MACE outcome and ≥1 haemorrhagic MACE outcome, with >1year of average follow-up. We excluded studies that restricted to other types of intracranial haemorrhage. We used QUIPS to assess risk of bias and summarised participant characteristics using study-level medians. We perform random-effects meta-analysis (‘metarate’ in R) to estimate the annual event rate (per 100 person-years) and conducted subgroup analyses and meta-regression to explore heterogeneity.

Results:

From 4,051 records, we included 26 studies, involving 198,289 ICH survivors. The reported annual rate of MACE ranged from 4.2–14.6%, with ischaemic MACE ranging from 2.2% to 7.7%.and haemorrhagic MACE from 1.4 to 4.1%. The pooled annual rate of recurrent ICH was 2.1% (95% CI 1.7–2.6; 26 studies; I2=94%) and of ischaemic stroke was 2.0% (95% CI 1.5–2.7; 26 studies; I2=95%). In the meta-regression analysis, only a higher prevalence of atrial fibrillation was associated with an increased risk of ischaemic stroke.

Conclusion:

The rates of recurrent ICH and ischaemic stroke were comparable among ICH survivors, but evidence on the other MACE outcomes remains limited. We are conducting an individual participant data meta-analysis (PROSPERO: CRD420251029579) to identify predictors of MACE after ICH and derive validated prediction models, which may help inform risk stratification and prognosis among ICH survivors. To date, 19 authors from 13 countries have agreed to collaborate. This ongoing project is funded by SHARP.

SHARP Prize Abstracts

Title:	SGLT2-inhibitor and GLP1-agonist use is associated with improved outcome in patients with aortic stenosis
Authors:	Yashika Relan[1], Yi Jia Liew[2], Chim C Lang[3] , Ify R Mordi[3]
Affiliations:	1 Second-Year Medical Student at University of Dundee, School of Medicine 2 Specialist Registrar and Cardiology Clinical Fellow, NHS Tayside 3 Consultant Cardiologists, NHS Tayside

Introduction:

Aortic stenosis (AS) is the most common valvular heart disease in Scotland and currently lacks pharmacological treatment. Patients are monitored until symptoms necessitate aortic valve replacement (AVR). AS induces myocardial structural and functional changes similar to heart failure with preserved ejection fraction (HFpEF), including left ventricular hypertrophy. SGLT-2 inhibitors (SGLT2i) and GLP-1 receptor agonists (GLP1RA) improve cardiovascular outcomes in HFpEF, suggesting potential benefit in AS.

Methods:

Using the TriNetX Global Research Network, 694,210 patients with AS were identified (2015 onwards), excluding those with prior heart failure or congenital aortic disorders. Patients were stratified by GLP1RA and SGLT2i use and 1:1 propensity score-matched (PSM) for age, sex, comorbidities and medications and key biochemical labs. The primary outcome was composite of all-cause mortality and AVR (death/AVR) over a 10-year follow-up, analysed using measures of association and Kaplan-Meier Survival.

Results:

After PSM, 22,401 GLP1RA users and 26,485 SGLT2i users were compared with equally powered non-users. The primary composite outcome death/AVR was observed in 3400 GLP1RA users (16.1%), 4442 non-GLP1RA users (20.5%), 3,643 SGLT2i users (14.6%) and 6,204 non-SGLT2i users (24.3%).

SGLT2i use was associated with a 14% lower hazard of composite outcome compared to non-SGLT2i users (Hazard Ratio 0.86, 95% CI: 0.825-0.896, $p<0.001$). GLP1RA use did not significantly change incidence of composite outcome but reduced all-cause mortality by 39% (Risk Ratio 0.61, 95% CI 0.58-0.64, $p<0.001$). The lack of effect on the composite outcome may reflect a competing risk between death and AVR – with improved survival delaying AVR.

Conclusion:

SGLT2i may reduce the risk of death/AVR in AS while GLP1RA improves 10-year survival. These findings highlight the need for further prospective studies to explore the role of SGLT2i and GLP1RA as novel therapeutic interventions in AS.

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Scottish Lipid Forum

SHARP Prize Abstracts

Title:	Ultra-low field R1 mapping from Field-Cycling Imaging yields sensitive assessment of cerebral small vessel disease severity
Authors:	Nicholas Senn [1], Adamu Ali-Gombe [1], Edit Franko [1], Vasiliki Mallikourti [1], Oystein Kallevag [2], P. James Ross [1], Ran Levi [3], Nir Oren [3], David Lurie [1], Lionel M. Broche [1], Gordon D. Waiter [1], Mary-Joan MacLeod [1]
Affiliations:	[1.] Aberdeen Biomedical Imaging Centre, Institute of Medical Sciences, University of Aberdeen, UK. [2.] University of Stavanger, NO. [3.] School of Natural and Computing Sciences, University of Aberdeen, UK

Introduction:

Early detection and assessment of cerebral small vessel disease (SVD) progression is desirable to improve stroke and dementia outcomes. This first proof-of-concept study aimed to determine whether ultra-low field relaxation rate (R1) mapping performed using Field-Cycling Imaging (FCI) is sensitive to SVD disease severity.

Methods:

37 participants were recruited and split into a disease group with identified moderate or severe SVD in acquired brain image volume (n = 16; mean age, 75 years) and control group with no identified moderate or severe SVD (n = 21; mean age, 69 years), by radiological review of 3T MRI FLAIR images. FCI images were acquired across four evolution magnetic field strengths of 0.2, 2, 20 and 200 mTesla, for a single image slice of 10 mm thickness1. Sensitivity and specificity to discriminate moderate or severe SVD, from cases with no moderate or severe SVD present was examined for 1) two independent rater examinations of R1 maps, 2) R1 histogram features, and 3) deep learning classification.

Results:

The two groups were discriminated by rater 1, rater 2, best histogram feature, and best deep learning classification with sensitivity and specificity values of (0.81; 0.86), (0.88, 0.52), (0.94; 0.90), and (0.67; 1.00) respectively. Group 1 SVD burden (volume of abnormal white matter/ white matter volume) obtained from FCI and 3T MRI FLAIR yielded significant Pearson's correlation (R, 0.837, $p < 0.001$).

Conclusion:

FCI ultra-low field R1 mapping is sensitive to the presence of moderate or severe SVD and significantly correlates with disease burden.

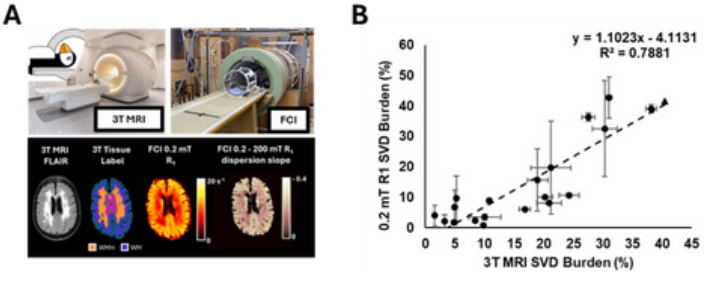

Fig. 1A: Co-registered 3T FLAIR image is shown adjacent to the tissue label map generated from 3T FLAIR, 0.2 mT FCI R1 map, and FCI R1 dispersion slope map, for case with severe deep white matter small vessel disease. Fig. 1B: Correlation between SVD burden obtained from R1 0.2mT and 3T FLAIR. Error bars indicate the difference between visit 1 and visit 2 values, repeated 30 days after visit 1. Pearson's correlation result for averaged visit values.

SHARP Prize Abstracts

Title:	Experience of bempedoic acid in combination with ezetimibe in lipid clinic patients in NHS Highland
Authors:	Nichola M. Shaw, Rosemary E. J. Clarke
Affiliations:	Lipid Clinic, Raigmore Hospital, NHS Highland

Introduction:

Bempedoic acid has Scottish Medicines Consortium(SMC) approval for use in combination with ezetimibe for patients who are statin intolerant, or in whom a statin is contraindicated, and are not eligible for PCSK9 inhibitors.

Methods:

Over a 20 month period statin intolerant patients were referred to the lipid clinic for consideration of bempedoic acid in addition to ezetimibe. Patients who were initiated on bempedoic acid were followed up over approximately four months to ensure safety and effectiveness for each individual.

Results:

17 patients were referred to the lipid clinic for consideration of bempedoic acid.

13 patients were commenced on treatment and 4 did not commence treatment due to either wishing to retry a statin, personal reasons or awaiting treatment for anaemia.

7 patients continued on treatment and 6 discontinued treatment. Reasons for discontinuation included becoming eligible for PCSK9 inhibitor, diarrhoea, muscle pain, bloating and rash or skin effects.

Blood results at 3 months after starting bempedoic acid showed a percentage reduction from baseline non HDL cholesterol of between 7.3 and 43%

Conclusion:

Bempedoic acid and ezetimibe in combination resulted in a reduction in non HDL cholesterol levels and it appears an effective alternative for patients who are statin intolerant.

From experience with this patient group we plan to consider primary care initiation with appropriate monitoring.

SHARP Prize Abstracts

Title:	Blood Pressure Monitoring in Patients on Anticoagulant Therapy with Uncontrolled Hypertension: A Compliance Audit
Authors:	Jessie Stewart, Jacob Milsom, Olivia Howatson-Kerr
Affiliations:	University of St Andrews

Introduction:

Anticoagulated patients with uncontrolled hypertension are at increased risk of haemorrhagic and thromboembolic events. National guidelines recommend regular blood pressure (BP) monitoring in this group; however, it was unclear whether patients at Scoonie Medical Practice were consistently offered BP reviews. This audit assessed the proportion of anticoagulated patients with uncontrolled hypertension invited for a BP review within the past 12 months and explored barriers to meeting national standards.

Methods:

A retrospective audit was conducted using the EMIS clinical system. Patients were selected if they were prescribed anticoagulant therapy and had either: two BP readings >160 mmHg systolic or >100 mmHg diastolic, or one >180 mmHg systolic or >110 mmHg diastolic between 20/02/2024 and 20/02/2025. Data was collected on whether a formal BP review invitation was documented. Results were compared against a target of ≥80% of eligible patients being offered a BP review within the past 12 months.

Results:

Of 31 patients identified, 19 met inclusion criteria. Thirteen (68.4%) had a documented BP review within the past year—below the ≥80% target. Comparison to national trends was limited by a lack of Scottish data on anticoagulation and hypertension monitoring.

Conclusion:

Standardise BP entry in EMIS, implement alerts and high-risk patient flags, and make BP reviews routine in anticoagulant monitoring to ensure at- risk patients are not overlooked. Alongside these changes, raise staff awareness of risks associated with uncontrolled hypertension in anticoagulated patients. These interventions aim to enhance patient safety and ensure compliance with national standards. A re-audit in 12 months will assess their impact.

SHARP Prize Abstracts

Title:	Ensuring appropriate co-prescription of Direct Oral Anticoagulants (DOACs) and antiplatelets (APLs) in an NHS Fife Medical Practice to improve patient safety: indications, duration and gastroprotection considerations
Authors:	Brendan Harrison, Rhiannon Freireich, Gregor Trickett
Affiliations:	ScotGEM, University of St Andrews

Introduction:

Dual therapy for the prevention and treatment of venous and arterial thrombotic events, respectively, with Direct oral anticoagulants (DOACs) and antiplatelets (APL) increases the risk of bleeding, in particular gastrointestinal. Current guidelines for dual therapy are limited; however, research suggests that treatment duration should not exceed 12 months. This audit evaluates adherence to guidelines at a Medical Practice in NHS Fife and prescribing practices regarding indication, duration and gastroprotection for patients on dual therapy.

Methods:

Patients prescribed a DOAC and APL were selected from EMIS and Docman records. This included patient demographics, treatment indication, prescribing duration, bleeding risk (HAS-BLED) and PPI co-prescription. Patient indications were compared to British National Formulary (BNF) guidelines.

Results:

Of 17 patients, 29.4% (n=5) had no clear indication for DOAC therapy. 23.5% (n=4) had no clear indication for APL therapy. 82.4% (n=14) exceeded 12 months on dual therapy. 52.9% (n=9) had a HAS-BLED score ≥ 2 and 11.8% (n=2) had a score ≥ 3 (based upon age, stroke history and current medication characteristics). 100% (n=17) were prescribed a PPI.

Conclusion:

The documentation of appropriate indication, duration and relevant review for dual therapy was inadequate, failing to identify patients eligible for deprescription of DOAC or APL which would improve patient safety in a high-risk group (HAS-BLED score ≥ 2). The practise was recommended to urgently review patients not indicated for dual therapy; conduct review appointments following 12 months of treatment; clearly record the prescribing rationale and treatment duration; and re-audit in 12 months to assess the effectiveness of recommendations.

SHARP Prize Abstracts

Title:	Telemetry QI Project
Authors:	Dr Sehyr Zahoor, Dr Oluwole Ogeleye, Dr Victor Sambo
Affiliations:	NHS GGC

Introduction:

Telemetry is required for a range of pathologies. From standard chest pain protocols, loss of consciousness, syncopal episodes to electrolyte disturbances. It is an essential part of monitoring patients in acute receiving areas and wards. However, telemetry is not always reviewed in a timely manner, which leads to increased pressure on staff and potential delays to patient care.

Methods:

Over a period of two weeks, we reviewed patient notes in the combined assessment unit (CAU) and were on telemetry to deduce if the need for continued cardiac monitoring had been reviewed within 24 hours. We made posters after the first cycle and placed the posters in the combined assessment unit. We also encouraged staff to review and document if a patient needs ongoing cardiac monitoring or not at the 11:30 hurdle. We then carried out the second cycle three weeks later.

Results:

We reviewed a total of 12 patients who were admitted to CAU and were put on telemetry. Only 5 (41.67%) patients were reviewed after 24. During the 2nd cycle, we reviewed a total of 12 patients who were put on telemetry over the course of two weeks. Telemetry had been reviewed in 83% (10) and documented and just under 17% (2) were not reviewed.

Conclusion:

Timely review will allow for patients who do not need further cardiac monitoring to be taken off telemetry. Meaning more telemetry units will be available for patients who need them. This will lead to less pressure on all staff members and improve patient care.

Non-Profit Partners

British Heart Foundation
www.bhf.org.uk/what-we-do/in-your-area/scotland

British Heart Foundation is the UK's leading independent funder of cardiovascular disease research. BHF Scotland campaign to protect heart health, improve services for patients, and work towards a future where everyone has a healthier heart for longer.

Chest Heart & Stroke Scotland
www.chss.org.uk

Chest Heart & Stroke Scotland is one of Scotlands leading health charity supporting people with chest, heart, stroke conditions - and Long Covid - to live life to the full. Our goal is to ensure everyone affected with one of our conditions gets the care, and support, and that everyone with with our condition can access supported self management and community recovery services.

As well as campaigning for better care and stronger policies for people with our conditions we offer a large range of physical service including our Advice Line, health information and peer support teams to local health checks, physical activity groups, and community healthcare support service we aim to be there for people when they return home from hospital or need help managing their condition day to day. Everything we do is shaped by the people we support.

British & Irish Hypertension Society
www.bihs.org.uk

The British and Irish Hypertension Society (BIHS) is a charitable organisation dedicated to improving health outcomes through the prevention, detection, and management of high blood pressure and related cardiovascular diseases. The Society advances science and supports excellence in clinical practice through guideline development, device validation, and professional education programmes. BIHS also works closely with Blood Pressure UK (BPUK) to raise public awareness.

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NHS Research Scotland
www.nhsresearchscotland.org.uk

Our role is to support the delivery of high quality clinical research. We help to manage participant recruitment to time and target, both for studies which are led from Scotland, and studies led from other nations which Scottish sites are participating in.

We focus on research that deals with the investigation, diagnosis, monitoring, and treatment of all types and stages of cardiovascular disease. This means we support a range of research studies such as those involving heart failure, blood pressure, heart defects, heart muscle disease and surgery .

Information for patients, carers and the public
NHS Research Scotland is committed to actively involving patients, those who care for them and the public in all aspects of the research process, including shaping future research activity.

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Royal College of Physicians and Surgeons of Glasgow
https://rcpsg.ac.uk/membership

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Our values embody the essence of the College motto, conjurat amice, meaning 'together in friendship' – an approach that is as relevant today as it was 425 years ago.

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Although our current Members may not treat the same conditions as we did over four centuries ago, modern medicine presents its own challenges. That is why we always strive to be a forward-looking, people-centered College.

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Become a SHARP Trustee

SHARP was launched in 1988, at a time when deaths from coronary heart disease in Scotland far exceeded the rest of the UK. The SHARP Bus visited various places of work within Scotland from 1991-1996, where they offered cardiovascular risk screening and counselling about cardiovascular disease. This successfully raised awareness of coronary risk factors in the working population of Scotland. The screening and follow-up data was used to conduct research, which has resulted in the development of better screening tools and better treatments for cardiovascular disease over the last 30plus years.

Today this vision of SHARP continues, albeit without the red bus. SHARP has a strong presence in the areas of medical education. We meet annually at our ASM (Annual Scientific Meeting), where we work in close collaboration with the Scottish Lipid Forum. Each year our annual conference brings together professionals, educators, students and institutions from a variety of healthcare sectors, to share, collaborate and network. We also deliver cardiovascular Webinars throughout the year, facilitating learning via various platforms.

SHARP funds research via the National Project Grant (up to £50K) and by providing a Summer Studentship (up to £1,800). This results in clinically meaningful research that will benefit the people of Scotland, expands our educational activities to physicians, AHPs (Allied Health professionals) and patients, whilst also raising the profile of SHARP.

The Board of SHARP Trustees is responsible for the governance and strategy of SHARP. The Board comprises a mix of medically qualified and lay members. A trustee's role in this charity is to be a ‘guardian of purpose’, making sure that all decisions put the needs of cardiovascular patients first; that there is a clear strategy and that all work and goals are in line with SHARP’s vision.

Trustees safeguard the charity’s assets – both physical assets, including property, and intangible ones, such as its reputation. We make sure these are used well and that the charity is run sustainably.

SHARP Trustees don’t usually do the day-to-day running of the charity. This is delegated to the Executive SHARP Committee, led by the SHARP Chair and supported by our Senior Charity Administrator. Owing to SHARP being a smaller charity, trustees may take hands-on roles too.

SHARP Trustees meet four to eight times a year. Like other boards, we have sub-committees that focus on particular areas of work or projects. So, trustees may be invited to get involved with one or more sub-committees, as well as being involved with SHARP’s work overall.

Being a SHARP trustee can be very rewarding. You have the chance to support and shape the work and strategic direction of SHARP, and you can make a significant difference to a cause that matters to you.

If you are interested in the role of a SHARP Trustee, kindly reach out to SHARP@dundee.ac.uk. Please share some details about yourself and elaborate on the reasons behind your interest in this position.

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We would like to thank the organisations listed above for sponsoring this meeting.

This meeting has been organised by SHARP and supported through funding from the below companies. These companies have had no involvement in the organisation of the meeting, with the exception of the sponsored symposium session, for which Daiichi Sankyo UK is fully responsible where medicines will be discussed.

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