Winter 2025

GP Connect

Supporting best practice in cardio-metabolic health

Sydney Cardiology

From the editor – Dr Gunjan Aggarwal

Specialising in general adult cardiology and non-invasive cardiac imaging, particularly echocardiography and cardiac computed tomography (CT).

Welcome to the winter edition of GP Connect 2025. This issue provides recent trial updates on topics including management of Heart Failure with preserved LV Ejection Fraction (HFpEF), dual antiplatelet therapy post acute coronary syndrome, assessment of microvascular dysfunction and the utility of beta blockers post myocardial infarction.

Dr Rudee Ting discusses the evolving therapeutic landscape of HFpEF. Recently SGLT2 inhibitors have been approved for use in all heart failure patients. There is now emerging evidence from the FINEARTS - HF trial of the benefit of finereone a selective mineralocorticoid antagonist in reducing heart failure events in patients with HFpEF.

GLP 1 agonist therapy has revolutionised the management of diabetes, metabolic disease and obesity. There is now emerging evidence of benefit of this powerful class of drug in cardiorenal disease and heart failure. The STEPHFPEF DM trial evaluates the role of semaglutide a GLP 1 agonist in obese diabetic patients with HFpEF. It demonstrated significant weight loss as well as relief from symptoms and improvement in quality of life.

As new drug modalities emerge there is also evidence challenging previously held dogmas. The REDUCE AMI trial supports de-escalation of beta blocker use post MI unless there is arrythmia or depressed LVEF.

I hope you enjoy this edition of GP Connect. We remain available as always to provide continued care to you and your patients in any way possible.

Thank you for your continued support,

Dr Gunjan Aggarwal

In this issue

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All Sydney Cardiology clinics have emergency appointments available for same-day referrals.

Click here to contact your local clinic directly for assistance.

Cardiac trials update

Dr Ru-Dee Ting

Specialising in general and interventional cardiology, including cardiac haemodynamic studies and complex coronary intervention.

The following is a brief review of six major cardiac trials that are expected to impact community practice. These trials address key issues, including the potential cessation of clopidogrel and beta blockade post myocardial infarction, the use of finerenone and semaglutide in myocardial dysfunction, the importance of Lp(a) in cardiac risk assessment and the utility of exercise stress testing in patients with angina with nonobstructive coronary arteries.

FINEARTS-HF:

Finerenone, a selective nonsteroidal mineralocorticoid receptor antagonist (MRA), was tested in HFrEF patients to assess its impact on cardiovascular outcomes.

FINEARTS-HF was a randomised, double-blind trial investigating the benefits of finerenone in 6,001 patients with heart failure with mildly reduced or preserved ejection fraction (HFmrEF or HFpEF). The primary outcome was a composite of total worsening heart failure events and cardiovascular death. Over 32 months, there was a 16% relative risk reduction in primary-outcome events in the finerenone group compared to the placebo group (rate ratio, 0.84; 95% confidence interval [CI], 0.74 to 0.95; P=0.007), driven by heart failure events.

This trial provides the first defintive evidence that a MRA is beneficial in HFmrEF/HFpEF. Until now, SGLT2 inhibitors were the only proven treatment option. Unlike spironolactone and eplerenone, finerenone offers a better safety profile with a lower risk of hyperkalemia. Therefore, finerenone should be considered as an additional treatment for HFmrEF/HFpEF, particularly in patients with concurrent diabetes or CKD.

References: Scott D. Solomon et al. Finerenone in Heart Failure with Mildly Reduced or Preserved Ejection Fraction N Engl J Med 2024;391:1475-1485.

STEP HFpEF DM

Obesity and type 2 diabetes are prevalent in patients with heart failure with preserved ejection fraction (HFpEF) and are associated with a high symptom burden. The efficacy of GLP-1 receptor agonists in obesity-related HFpEF in individuals with type 2 diabetes is unknown. This trial studied the effect of semaglutide in people with obesity, HFpEF, and diabetes mellitus.

STEP HFpEF DM is a randomised controlled trial of 616 diabetic patients with HFpEF and a body mass index (BMI) of 30 or higher. Participants were assigned to receive semaglutide (2.4 mg) or a placebo for 52 weeks. The primary end points were the change from baseline in the Kansas City Cardiomyopathy Questionnaire clinical summary score and the change in body weight.

The mean change in KCCQ-CSS was 13.7 points with semaglutide and 6.4 points with placebo (95% confidence interval [CI], 4.1 to 10.4; P<0.001). The mean percentage change in body weight was −9.8% with

semaglutide compared to −3.4% with placebo (95% CI, −7.6 to −5.2; P<0.001).

Among patients with obesity-related HFpEF and type 2 diabetes, semaglutide led to improvements in symptoms, weight loss, and functional capacity. While not a primary heart failure outcomes trial, these results suggest semaglutide may be a valuable adjunct therapy in obese HFpEF patients, addressing both metabolic and hemodynamic aspects of the condition.

References: Mikhail N. Kosiborod, et al. Semaglutide in Patients with Obesity-Related Heart Failure and Type 2 Diabetes. N Engl J Med 2024;390:1394-1407

ULTIMATE DAPT

Following percutaneous coronary intervention (PCI) to treat acute coronary syndromes (ACS), clinical guidelines typically recommend 12 months of dual antiplatelet therapy (DAPT) with aspirin plus a P2Y12 receptor inhibitor.

The aim of this trial was to assess whether the use of ticagrelor alone, compared with ticagrelor plus aspirin, could reduce the incidence of clinically relevant bleeding events without increasing the risk of major adverse cardiovascular or cerebrovascular events (MACCE).

In this randomised, placebo-controlled, double-blind clinical trial, 3,505 patients with an ACS and who experienced no major ischaemic or bleeding events after 1-month treatment with dual antiplatelet therapy were randomly assigned to receive oral ticagrelor plus, oral aspirin or oral ticagrelor plus placebo. The primary non-inferiority endpoint was MACCE (defined as the composite of cardiac death, myocardial infarction, ischaemic stroke, definite stent thrombosis, or clinically driven target vessel revascularisation).

Clinically relevant bleeding occurred in 2.1% in the ticagrelor group and in 4.6% in the ticagrelor plus aspirin group (hazard ratio [HR] 0.45 [95% CI 0·30 to 0·66]; p<0·0001). MACCE occurred in 3·6% of the patients in the ticagrelor group and in 3·7% in the ticagrelor plus aspirin group (absolute difference −0·1% [95% CI −1·4% to 1·2%]; HR 0·98 [95% CI 0·69 to 1·39]; non-inferiority <0·0001)

In patients with an acute coronary syndrome who underwent percutaneous coronary intervention and remained event-free for one month on dual antiplatelet therapy, treatment with ticagrelor alone between month 1 and 12 resulted in lower rates of bleeding and a similar rate of MACCE compared with ticagrelor plus aspirin. These findings support a personalised approach to DAPT, balancing ischemic and bleeding risks.

References: Zhan Ge et al. Ticagrelor alone versus ticagrelor plus aspirin from month 1 to month 12 after percutaneous coronary intervention in patients with acute coronary syndromes (ULTIMATE-DAPT): a randomised, placebo-controlled, double-blind clinical trial. The Lancet 2024; 10439:1866-1878.

Cardiac trials update (continued)

REDUCE-AMI

REDUCE-AMI evaluated the impact of reducing beta-blocker use after acute myocardial infarction (AMI). Most trials demonstrating a benefit of beta-blocker treatment after myocardial infarction included patients with large myocardial infarctions and were conducted in an era before treatment with percutaneous coronary intervention, antithrombotic agents, high-intensity statins, and renin–angiotensin–aldosterone system antagonists.

In a registry-based, parallel-group, open-label trial, 5,020 patients with acute myocardial infarction who had undergone coronary angiography and had a left ventricular ejection fraction of at least 50% were randomly assigned to receive either long-term beta-blocker treatment (metoprolol or bisoprolol) or no beta-blocker treatment. The primary endpoint was a composite of death from any cause or new myocardial infarction.

The median follow-up was 3.5 years. The primary endpoint occurred in 7.9% of patients in the beta-blocker group and 8.3% in the no–beta-blocker group (hazard ratio, 0.96; 95% confidence interval, 0.79 to 1.16; P=0.64). Beta-blocker treatment did not appear to reduce the cumulative incidence of secondary endpoints, (death from any cause, death from cardiovascular causes, myocardial infarction and hospitalisation for atrial fibrillation or heart failure.

Among patients with acute myocardial infarction who underwent early coronary angiography and had a preserved left ventricular ejection fraction (≥50%), long-term beta-blocker treatment did not reduce the risk of the composite primary endpoint death from any cause or new myocardial infarction with no beta-blocker use.

REDUCE-AMI challenges the dogma of long-term beta-blocker use following myocardial infarction (MI) in patients with preserved EF, showing no significant benefit in mortality or recurrent MI. The trial supports a more selective approach, reserving beta-blockers for those with reduced heart function or arrhythmias, aligning with recent de-escalation trends in post-MI care.

References: Troels Yndigegn, et al. Beta-Blockers after Myocardial Infarction and Preserved Ejection Fraction. N Engl J Med 2024;390:1372-1381.

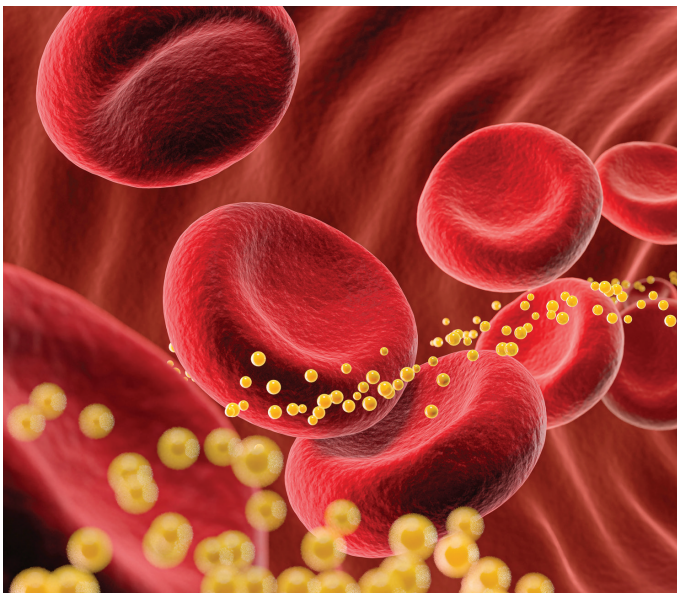
REDUCE-IT

The association between lipoprotein(a) (Lp[a]), a low-density lipoprotein particle whose concentrations are largely genetically determined, and cardiovascular (CV) risk has been established in epidemiologic studies. Clinical guidelines recommend measuring Lp(a) into comprehensive measures of CV risk assessments.

This post hoc analysis of REDUCE-IT (Reduction of Cardiovascular Events with Icosapent Ethyl–Intervention Trial) aimed to explore the cardiovascular benefit of icosapent ethyl (IPE) across a range of Lp(a) levels. It compared icosapent ethyl with placebo regarding CV outcomes among 8,179 participants with established atherosclerotic disease or diabetes, additional CV risk factors, and elevated triglycerides despite statin therapy.

Lp(a) showed significant relationships with first and total MACE (P< 0.0001), while event reductions with IPE did not vary across the range of Lp(a) (interaction P>0.10). IPE significantly reduced first MACE in subgroups with Lp(a) concentrations ≥50 and <50 mg/dL.

Baseline Lp(a) concentration was prognostic factor for MACE among participants with elevated triglyceride levels receiving statin therapy. Importantly, IPE consistently reduced MACE across a range of Lp(a) levels, including among those with clinically relevant elevations.



References: Michael Szarek et al. Lipoprotein(a) Blood Levels and Cardiovascular Risk Reduction With Icosapent Ethyl. J Am Coll Cardiol 2024; 83(16):1529-1539.

Exercise Electrocardiographic Stress Testing

Exercise electrocardiographic stress testing (EST) has historically been validated against the demonstration of obstructive coronary artery disease. However, myocardial ischemia can also result from coronary microvascular dysfunction (CMD) in the absence of obstructive coronary artery disease.

This study assessed the specificity of EST to detect an ischemic substrate against the reference standard of coronary endothelium-independent and endothelium-dependent microvascular function in patients with angina with nonobstructive coronary arteries (ANOCA).

Patients underwent invasive coronary physiological assessment to confirm ANOCA. EST was also performed, with ischemia defined as ≥0.1-mV ST-segment depression 80 ms from the J-point on ECG. The study was powered to detect specificity of ≥91%.

At total of 102 patients were enrolled (65% women, mean age 60 ± 8 years). Thirty-two patients developed ischemia during EST, whereas 70 patients did not; both groups were phenotypically similar. Ischemia during EST was 100% specific for CMD.

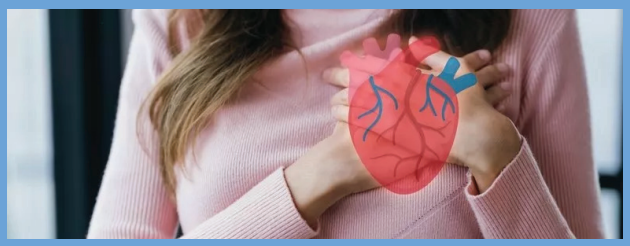
In patients with ANOCA, ischemia on EST was highly specific of an underlying ischemic substrate. These findings challenge the traditional belief that EST has a high false positive rate. A diagnosis of ANOCA should be considered in patients with suggestive symptoms and no evidence of epicardial disease on coronary angiography. Such patients should be referred for invasive coronary microvascular testing.

References: Aish Sinha et al. Rethinking False Positive Exercise Electrocardiographic Stress Tests by Assessing Coronary Microvascular Function. J Am Coll Cardiol 2024; 83(2):291-299.

In the news

Dr Fiona Foo

Clinical and interventional Cardiologist; Sydney Cardiology Group; Macquarie University Hospital; Sydney Adventist Hospital



Women's Health

Risk factors for ischaemic heart disease in women: Traditional and non-traditional

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Women's Health

Ischemia in women: Exploring cardiovascular disease and health

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We have experienced cardiologists in all major sub-specialties to provide the highest quality of patient care. We also have specialists in related fields including endocrinology and respiratory medicine. Our Sydney Cardiology team includes:

Cardiology

Dr James Wong

Specialising in general cardiology, prevention of coronary artery disease and hypertension.

Dr Abhinav Luhach

Specialising in general adult cardiology, cardiac CT, and preventive cardiology.

Dr Gunjan Aggarwal

Specialising in general adult cardiology and non-invasive cardiac imaging, particularly echocardiography and cardiac CT.

Dr Andrew Terluk

Specialising in general cardiology with an interest in cardiomyopathy in the setting of cancer.

Dr Ru-Dee Ting

Specialising in general and interventional cardiology, including cardiac haemodynamic studies and complex coronary intervention.

Dr Fiona Foo

Specialising in general and interventional cardiology with an interest in heart disease affecting women and sports cardiology.

Dr Bill Petrellis

Specialising in general adult cardiology and electrophysiology, including atrial fibrillation and device implantation.

A/Prof Martin Brown

Specialising in advanced heart failure, pulmonary hypertension, and transplant cardiology.

Endocrinology

Dr Suja Padmanabhan

Specialising in diabetes and general endocrinology with a special interest in diabetes in pregnancy and women's health.

Respiratory Medicine

Dr Tracy Smith

Respiratory and sleep physician specialising in respiratory disease with a special interest in respiratory failure due to lung or heart disease.

Our services

Sydney Cardiology is a world class comprehensive cardiology service, delivered with expertise and experience. Using state of the art diagnostic equipment in all five clinic locations, Sydney Cardiology strives to provide exemplary outcomes for long term patient care.

Urgent access

We provide same-day urgent appointments and 24/7 on-call support for GPs with a dedicated phone number, **02 9966 7700**.

Non-invasive testing

Including stress-echocardiography, echocardiography, holter monitor studies, ambulatory blood pressure studies, coronary calcium score, dobutamine stress echo, electrocardiogram and event monitor recording.

Echo, ABP, and holter monitor-only referral services

We provide echo-only, ABP-only, and holter monitor-only referral services, with a summary report on any adverse findings.

Electrophysiology

Including diagnostic electrophysiology studies, ablation of cardiac arrhythmias, cardiac device implantation, pacemakers and defibrillators, and follow up of implanted cardiac devices.

Cardiac procedures

Including coronary angiography, cardiac biopsies, right heart catheterisation, transesophageal echocardiogram and coronary angioplasty.

Including renal and lower limb angioplasty, ankle brachial index and SphygmoCorR central blood pressure testing.

ECG fax service

For urgent advice, 12-lead ECGs can be faxed to our locations.

Bella Vista - Fax: 02 9672 6214

Blacktown - Fax: 02 9676 8900

Chatswood - Fax: 02 9411 1904

Parramatta - Fax: 02 9635 1247

Sydney City - Fax: 02 9422 6081

Peripheral vascular services

Including renal and lower limb angioplasty, ankle brachial index and SphygmoCorR central blood pressure testing.

In-hospital care

All patients with appropriate private health coverage undergoing hospital procedures, do not incur any out-of-pocket costs. Sydney Cardiology has access to leading private hospitals, including:

Sydney Adventist Hospital
Wahroonga

Norwest Private Hospital
Bella Vista

Macquarie University Hospital
North Ryde

Northern Beach Hospital
Frenchs Forest

Patient fees

Sydney Cardiology is a private clinic however there are no out of pocket costs for Department of Veterans Affairs patients.

Referrals

To request a referral pad, click here.

Clinic locations

All clinics have emergency appointment timeslots available for same-day referrals. Contact any of our clinics directly for more assistance.

Bella Vista

Suite 213, Q Central,
10 Norbrik Drive,
Bella Vista NSW 2153

Tel: 02 9422 6000 | Fax: 02 9672 6214

Blacktown

Suite 4,
15-17 Kildare Road,
Blacktown NSW 2148

Tel: 02 9422 6050 | Fax: 02 9676 8900

Chatswood

Suite 901, Level 9, Tower B,
799 Pacific Highway,
Chatswood NSW 2067

Tel: 02 9422 6040 | Fax: 02 9411 1904

Parramatta

Level 5 Suite 501, B1 Tower,
118 Church Street,
Parramatta NSW 2150

Tel: 02 9422 6060 | Fax: 02 9635 1247

Sydney City

Suite 1303, Level 13
68 Pitt Street
Sydney NSW 2000

Tel: 02 9422 6080 | Fax: 02 9422 6081

Sydney Cardiology offers a free after-hours consult service for GPs
Call (02) 9966 7700 for specialist advice

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