

PULSE

ISSUE 47 | JULY 2026
WWW.NUHCS.COM.SG

COVER STORY

OVER DECADES OF PULSE



Scan here for an
e-copy of Pulse!
**TAKE ME
HOME!**



THE TEAM

Editorial Directors

Prof Tan Huay Cheem
Adj Prof Poh Kian Keong

Editors

Ms Belinda Chea
Ms Mindy Neo

Publications & Abstracts

Ms Belinda Chea
Ms Lin Xiao Yun
Ms Tan Sze Hwee

Publishing Agency

Triomine Pte Ltd

✉ nuhcs@nuhs.edu.sg

@ www.nuhcs.com.sg

YouTube www.youtube.com/NUHCS

f www.facebook.com/NUHCS

Instagram @nuhcsofficial

X.com/NUHCS

LinkedIn www.linkedin.com/company/nuhcs/

TikTok www.tiktok.com/@nuhcsofficial

Pulse is a biannual publication by the National University Heart Centre, Singapore (NUHCS).

NUHCS spans across four locations:

NUHCS at National University Hospital (NUH) - Main Operations
National University Hospital, 5 Lower Kent Ridge Road, S(119074)

NUHCS @ Ng Teng Fong General Hospital (NTFGH)

Ng Teng Fong General Hospital,
1 Jurong East Street 21, S(609606)

NUHCS @ Alexandra Hospital (AH)

Alexandra Hospital, 378 Alexandra Road, S(159964)

NUHCS @ Jurong Medical Centre (JMC)

60 Jurong West Central 3, S(648346)

Opening Hours:

8.30am to 5.30pm (Mondays to Fridays), closed on Weekends & Public Holidays.

Appointments:

Call 6908 2222 or email:
appointment@nuhs.edu.sg

Pulse is intended to provide general information herein. Content should not be taken as any medical advice or recommendation or replace a consultation with a qualified healthcare professional. Readers are advised to seek advice of a qualified healthcare professional for a professional diagnosis before starting any course of treatment in matters relating to health, physical fitness or medical conditions. Copyright© is held by the publishers. All rights reserved. Reproduction in whole or in parts without permission is prohibited.

TABLE OF CONTENTS

04 NUHCS Ecosystem

05 Editor's Message

COVER STORY

06 Over Two Decades of Pulse
Capturing the Heart of Our Story



EVENT

08 Supporting Families Through Every Heartbeat
NUHCS Congenital Heart Surgery Parent Huddle 2026

10 Leading Cardiovascular Excellence in Care and Education

12 Making History at ACC 2026
Prof Poh Kian Keong is Singapore's only recipient of the American College of Cardiology's Distinguished Awards



14 Illuminating Life with Pulmonary Hypertension (PH) Through Shared Stories
Highlighting journeys of strength and courage at the Blue Lips 2025 event



- 16** **NUHCS Party 2026**
Celebrating the Community
Behind the Care



- 18** **Heartfelt Celebrations**
Highlights from Caring Hearts Support
Group (CHSG)



- 20** **Advancing Heart-Brain Medicine
on the Global Stage**
NUHCS at ESC Heart & Stroke and
EuroThrombosis 2025

CLINICAL

- 21** **Building Smarter,
Quicker Heart Care**
Opening of the new NUHCS
Angiography Centre and Diagnostic
Cardiac Laboratory @ L1
- 22** **Nurturing the Next Generation
of ECMO Experts**
Advancing critical care management
with Singapore's only ELSO-endorsed
ECMO Course at NUHCS
- 24** **From Research to Recognition**
A cardiology trainee's unexpected
opportunity on an international stage
- 25** **Over 20 Years of Cardiology
Expertise in One Book**
Launch of the Case-based
Comprehensive Cardiology Book

EDUCATION

- 26** **Stay on Track to Keep Your Heart
in Check**
A safer & healthier fitness journey with
NUHCS Sports Cardiology
- 28** **Navigating Women's Heart
Health Across Generations**
A letter from your heart through every
stage of life

FACES OF NUHCS

- 30** **Leading Cardiology Forward**
An interview with the New Head of
Cardiology for NUHCS @ National
University Hospital (NUH)



- 32** **Nurturing the Future of Nursing**
An interview with the New Head of
Nursing for NUHCS
- 34** **At the Heart of Cardiac Surgery**
Adj A/Prof Vitaly Sorokin on leading
the Division of Adult Cardiac Surgery at
NUHCS
- 36** **Learning Abroad, Caring at Home**
How insights from a cardiac imaging
fellowship are transforming patient care
at NUHCS



- 38** **Singapore Health Quality Service
Awards 2026**
Honouring the Heart of Healthcare

NEWSBYTES

- 39** **Awards and Promotions**
- 40** **Publications & Abstracts**



**National University
Heart Centre
Singapore**



NUHCS is an academic, national specialist centre that brings together the resources, expertise and capabilities in the areas of Cardiology, Cardiothoracic and Vascular Surgery to better meet the needs of the growing number of patients with heart disease and raise the future generation of medical professionals. As a national heart centre in Singapore, NUHCS has honed two Peaks of Excellence and six Core Clinical Programmes that provide leading care and treatment strategies for patients:

CORE CLINICAL PROGRAMMES

- Acute Coronary Syndrome Programme
- Congenital and Structural Heart Disease Programme
- Heart Failure & Cardiomyopathy Programme
- Heart Rhythm Programme
- Vascular Medicine and Therapy Programme
- Women's Heart Health Programme

INSTITUTIONAL PEAKS OF EXCELLENCE

- Minimally Invasive Cardiothoracic Surgery (MICTS)
- Aortic Centre



**NUHCS Heart Clinic @
Ng Teng Fong
General Hospital**



**NUHCS Heart Clinic @
Alexandra Hospital**



**National University
Heart Centre, Singapore
(NUHCS) at National
University Hospital
- Main Operations**

NUHCS SERVICES IN SINGAPORE



**NUHCS Heart Clinic
@ Jurong Medical Centre**



Cardiovascular Research Institute (CVRI): Research Pillar of NUHCS

Comprising a team of internationally-recognised cardiologists and surgeons from the cardiothoracic and vascular specialties, NUHCS serves as a referral national centre for cardiothoracic and vascular conditions and provides a comprehensive approach to the treatment of these patients.

The holistic patient-care approach is backed by leading translational research at the Cardiovascular Research Institute (CVRI) and Cardiovascular Metabolic Translational Program, all of which complements these advanced quaternary clinical services to deliver state-of-the-art treatment solutions to the most challenging heart, lung and circulatory diseases.



National University Health System (NUHS)

An integrated Academic Health System, serving as one of three public healthcare clusters

As a member of NUHS, NUHCS collaborates with professionals and centres across the health system to advance the tripartite missions of achieving clinical excellence for patients, developing the next generation of healthcare professionals, and changing the natural history of chronic diseases through research.

Editor's Message

Dear readers,

As we mark 23 remarkable years of the NUHCS PULSE magazine, it is with great pride and heartfelt appreciation that we reflect on the journey of this publication. From its inception, the PULSE has been dedicated to sharing the wealth of knowledge, groundbreaking research, and outstanding accomplishments in both research and patient care at the National University Heart Centre, Singapore (NUHCS). Our aim has always been to connect with the public and medical professionals alike, fostering understanding and celebrating excellence.

Each issue of PULSE represents the tireless efforts of many individuals across NUHCS. Behind every article, interview, and feature lies the dedication and commitment of not just our editorial team, but of doctors, nurses, allied health professionals, and operations staff. Together, they bring to life the stories that define our national centre — stories of innovation, teamwork, and the shared goal of serving our patients and our nation.

Over these 23 years, NUHCS PULSE has gradually transformed in its approach and presentation. What began with a focus on individual faces and personal stories on the front page has evolved into a broader, more integrated format highlighting team- and programme-based achievements. This shift reflects the very essence of NUHCS, where collaborative effort and multidisciplinary teamwork drive the care we provide and the successes we celebrate.

This issue continues to showcase NUHCS' dynamic presence on the global stage. We proudly highlight our faculty's involvement at the American College of Cardiology and the European Society of Cardiology meetings, sharing their leading insights with the wider community. We celebrate the honourable feature of Dr Elinor Tan, Senior Resident, Department of Cardiology, NUHCS, on an internationally-renowned podcast discussing her research in heart failure care, and the launch of an instructive cardiology textbook for trainees by Prof Yeo Tiong Cheng, Group Chief of Cardiology and Senior Consultant, NUHCS, further supporting education in our field.

We also honour the distinguished award conferred on Prof Poh Kian Keong, Director of Research and Senior Consultant, Department of Cardiology, NUHCS, at the American College of Cardiology, along with the well-deserved Singapore Health Quality Service Awards in 2026 received by many of our dedicated staff members. These honours reflect the high standards and passion for quality care that define NUHCS.

As we look ahead after over two decades of publication, P U L S E seeks to

continue deepening its connection with our supportive readers — our valued community of healthcare professionals, patients, and partners. We invite you to celebrate the dedication behind every achievement and to continue supporting the important work of all NUHCS staff. Through teamwork, passion, and perseverance, we continue to advance heart health for Singapore and beyond.

Tan Huay Cheem

Prof Tan Huay Cheem
Senior Advisor, NUHCS



OVER TWO DECADES OF PULSE:

Capturing the heart of our story

FROM MILESTONES AND BREAKTHROUGHS TO THE PEOPLE BEHIND THEM, *PULSE* HAS CHRONICLED NUHCS' JOURNEY FOR MORE THAN TWO DECADES.

For over 20 years, *PULSE* has been more than a publication. It has been a living record of the National University Heart Centre, Singapore (NUHCS), capturing defining moments in cardiovascular care, scientific discovery, and the people who have shaped every step forward. Since its inaugural issue in 2003, *PULSE* has traced the National Centre's journey through change, challenge and progress in impacting the heart health of Singaporeans, showcasing the many milestones that have delivered better care, improved outcomes, and renewed hope for patients and their families. Each issue offers a snapshot of a moment in time, together forming a shared story of care and commitment.

Step into the different eras that etched milestones



Issue 1 | January 2003

The inaugural issue of *PULSE* was published, marking the beginning of a platform dedicated to sharing knowledge, progress, and stories from across the cardiovascular community. What began as a simple idea laid the foundation for a lasting record of NUHCS' journey.



PULSE Supplement | July 2003

A special issue that honoured the courage and resilience of frontline healthcare workers during the Severe Acute Respiratory Syndrome (SARS) outbreak, capturing a period that challenged the healthcare community when many found themselves caring for patients while confronting the disease directly. Even when faced with the risk of SARS infection and quarantine from their families, the team continued to serve at the frontline, embodying courage and commitment in the midst of uncertainty.



Issue 12 | July 2008

PULSE documented a defining milestone - The Heart Institute at the National University Hospital (NUH) evolves into the National University Heart Centre, Singapore (NUHCS). Recognised by the Ministry of Health as Singapore's National Centre for tertiary management of complex heart, lung, and vascular conditions, NUHCS brought together specialised patient care, education and research under one integrated institution, strengthening its ability to deliver advanced cardiovascular care while shaping the future of heart health in Singapore.



Issue 17 | July 2011

PULSE featured the opening of NUHCS' new building and facilities, marking a new chapter in its growth and development. Built to meet the growing demand for specialised cardiovascular services, the expanded facility enhanced capacity and strengthened NUHCS' ability to care for patients with complex heart conditions.



Issue 18 | January 2012

The opening of the Cardiovascular Research Institute (CVRI) marked another important milestone in NUHCS' journey as Singapore's national heart centre.

Complementing its roles in patient care and education, CVRI, as the research arm of NUHCS, brought clinicians and scientists together to drive discoveries that could translate into better treatments and improved outcomes for patients.

Issue 23 | January 2014

As patients with increasingly complex heart and thoracic conditions required more specialised care, *PULSE* featured the NUHCS Cardiothoracic Intensive Care Unit (CTICU), Singapore's only intensivist-run CTICU. Staffed by dedicated cardiac intensivists trained in critical care, perioperative and cardiovascular medicine, the unit provides round-the-clock care during the most critical stages of recovery.

**Issue 32 | January 2019**

NUHCS celebrated its 10th anniversary with a tree planting ceremony, symbolising growth, continuity, and shared roots. The milestone marked a decade of serving as Singapore's national heart centre, providing highly specialised care for patients with complex cardiac, lung and circulatory conditions while advancing research and training the next generation of healthcare professionals.

**Issue 39 | June 2022**

NUHCS expanded its services to Ng Teng Fong General Hospital, and subsequently to Alexandra Hospital and Jurong Medical Centre, bringing specialist cardiovascular care closer to the community. Through outpatient specialist clinics, cardiac diagnostic services and multidisciplinary care, patients in the western region gained greater access to timely and comprehensive heart care closer to home.

**Issue 46 | January 2026**

The latest issue focuses on training and education, highlighting NUHCS' commitment to nurturing the next generation of cardiovascular specialists. Through a strong culture of learning, mentorship and innovation, the centre empowers future clinicians, researchers and leaders with purpose, grounded in the belief that tomorrow's care begins with learning today.

**Issue 30 | January 2018**

A tribute issue honoured Professor Chia Boon Lock, a pioneer in Singapore cardiology whose influence extends far beyond his own achievements. Through decades of teaching and mentorship, he helped train and inspire generations of cardiologists, many of whom continue to care for patients and advance cardiovascular medicine today.

**Issue 35 | July 2020**

As the world grappled with Coronavirus Disease 2019 (COVID-19), *PULSE* shone a spotlight on the dedication, compassion and perseverance of frontline healthcare teams who continued to care for patients amid unprecedented challenges.

**Issue 42 | February 2024**

PULSE captured a milestone that reflected NUHCS' commitment to caring beyond medicine. As part of NUHCS' 15th anniversary, NUHCS organised its inaugural Charity Golf & Dinner event. Graced by President Tharmar Shanmugaratnam, the charity initiative raised more than \$1.2 million to support financially disadvantaged heart patients, helping to ensure that quality care remains accessible to those in need.

Across 23 years and 46 issues, *PULSE* has documented the story of NUHCS, serving as a time capsule of the institute's journey. It has captured the milestones achieved, the challenges overcome and, most importantly, the people behind them. Behind every issue are clinicians, nurses, researchers, allied health professionals, members of the Caring Hearts Support Group, patients and partners who have contributed to the evolving story of *PULSE*.

Beyond its pages, *PULSE* continues to bring heart health knowledge closer to the community. Distributed to public libraries, community clubs, the Singapore Heart Foundation, country clubs, Senior Activity Centres, and digital platforms such as National Library Board (NLB)'s official app, *Libby*, the publication reaches readers across Singapore, extending its stories and educational resources beyond the walls of the hospital and into the heartlands.

As NUHCS continues to grow, *PULSE* remains committed to capturing what matters most – not only progress in medicine, but the people and purpose that drive it forward.

ARTICLE BY

NUHCS PULSE Editorial



Supporting Families Through Every Heartbeat

NUHCS CONGENITAL HEART SURGERY PARENT HUDDLE 2026

Families came together for an afternoon of shared stories, support, and hope at the National University Heart Centre, Singapore (NUHCS) Congenital Heart Surgery Parent Huddle on 24 January 2026. In partnership with the Congenital Heart Association Parent & Patient Support Group (CHAPPS), the event offered a safe, welcoming space for children with Congenital Heart Disease (CHD) and their families to connect, learn and share experiences.



Understanding Congenital Heart Disease (CHD)

CHD refers to structural or functional abnormalities of the heart present at birth, which may affect the flow of blood and oxygen throughout the body.

SOME COMMON CONDITIONS INCLUDE:

SEPTAL DEFECT

Hole in the heart's wall that separates the chambers, disrupting the flow of oxygen-rich blood to the body

TETRALOGY OF FALLOT (TOF)

Combination of four heart defects that reduces or obstructs blood flow to the lungs and body

COARCTATION OF THE AORTA (COA)

The narrowing of the aorta – the main artery that carries blood from the heart to the rest of the body – that results in the body receiving less oxygen to function

A Patient's Journey

A key highlight of the event was a heartfelt sharing that brought to life what it means to grow up with CHD, not just medically, but personally.

Sarah, a 23-year-old dentistry student born with Ebstein's anomaly, shared on her journey living with a rare condition that affects the heart's valves, preventing them from closing properly. This causes blood to flow backwards within the heart, making blood circulation less efficient and often leading to symptoms such as fatigue and reduced exercise tolerance as the body receives less oxygen. Having undergone catheter ablation¹ and heart surgery at the age of 13, her story resonated with many in the room. More than the procedures she went through, it was how she learnt to navigate life around them that left a strong impression. She reflected on the quieter struggles of growing up

with CHD, from sitting out of physical activities to living life differently from her peers, and becoming self-conscious about the scar on her chest. Over time, these experiences began to take on new meaning. What once felt like a visible marker of limitation gradually became something she accepted and carried with confidence as part of her identity. Today, Sarah is pursuing her studies while managing her condition and living an active student life.

Her story was not just about overcoming medical challenges, but also about adapting, building confidence, and redefining what it means to live well with CHD. For many families present, her journey offered something deeply reassuring, a glimpse of what is possible beyond the uncertainties of diagnosis and treatment.



“MY PARENTS HAVE NEVER ONCE MADE ME FEEL LIKE MY HEART CONDITION WOULD LIMIT WHAT I WANT TO ACHIEVE.”

~ SARAH,
23 YEAR-OLD CHD WARRIOR

Sarah's openness encouraged families to ask questions during an interactive Q&A with NUHCS' team of CHD cardiologists and surgeons. Discussions included daily care tips, treatment options, and long-term considerations. Beyond medical guidance, the session allowed patients and families who have walked similar paths to connect with one another, fostering a deeper sense of understanding and community.



Back row, from left to right: A/Prof Laszlo Kiraly, Head, Department of Cardiac, Thoracic and Vascular Surgery (CTVS), NUHCS; Adj A/Prof Low Ting Ting, Senior Consultant, Department of Cardiology, NUHCS; Dr Senthil Kumar Subbian and Dr Winn Maung Maung Aye, Senior Consultants, Division of Paediatric Cardiac Surgery, Department of CTVS, NUHCS, answering commonly asked questions about CHD.

A HOLISTIC APPROACH

For many families, the CHD journey is not one they walk alone. Over time, familiar faces become part of that journey, not just doctors and nurses, but people who have walked alongside them through different stages of life.

At NUHCS, some of the surgeons and care teams have known these children since they were babies and have seen them grow into teenagers and young adults. Watching them reach milestones, find their confidence, and live full lives carries a quiet but profound meaning. Events like the Parent Huddle are an extension of that shared journey, offering a space where families can come together, reconnect, and reflect on how far they have come.

Beyond information and medical guidance, these gatherings create moments of understanding that are difficult to replicate elsewhere. Experiences are recognised without the need for explanation, and reassurance often comes from simply seeing others who have walked a similar path. In these shared moments, a sense of community grows, reminding families that there is strength not just in care, but in connection.



While parents connect, children can have fun too with window art and balloon sculpting!

Reference:

1. **Ablation:** A medical procedure that uses heat, cold, or chemicals to destroy or remove abnormal tissue or disrupt nerve function in a specific area of the body.

ARTICLE BY

NUHCS PULSE Editorial

Leading Cardiovascular Excellence in Care and Education



Representatives from Singapore at the ACC 2026

The American College of Cardiology Annual Scientific Session (ACC 2026), held in New Orleans from 28–30 March, brought together leading cardiovascular clinicians, researchers, and educators to spotlight the latest advances in heart care. As one of the field's most influential global platforms, ACC continues to serve as a key platform for presenting new research, shaping clinical practice, and fostering international collaboration.

This year, the National University Heart Centre, Singapore (NUHCS) made a strong presence, contributing actively across scientific, academic, and leadership arenas, while engaging with global peers to discuss on evolving cardiovascular care.

NUHCS making an impact on the global stage

Prof Tan Huay Cheem, Senior Advisor, NUHCS, led a session addressing latest updates in ACC guidelines, providing insights on translating emerging evidence into real-world clinical takeaways. He explored key areas of evolving practice, including the nuanced role of beta-blockers – particularly on the left ventricular ejection fraction, and the potential de-escalation of long-term therapy in selected patients. The session also spotlighted the growing role of Artificial Intelligence (AI) in cardiology, with forward-looking insights on how AI could enhance clinical decision-making in risk stratification and enable more personalised cardiovascular care.



Prof Tan Huay Cheem leading the discussion on stage



American College of Cardiology (ACC)

A non-profit medical society, dedicated to enhance the lives of cardiovascular patients through continuous improvements in patient-centered care, education, research and advocacy. Consisting of a diverse group of cardiology professionals including cardiologists, cardiac surgeons, fellows, residents, nurses, and researchers, this organisation offers a range of educational and research opportunities for advancements in the field of cardiovascular health across the globe.

A major highlight was the recognition of Adj Prof Poh Kian Keong, Director of Research and Senior Consultant, Department of Cardiology, NUHCS, who was awarded the ACC Navin C. Nanda

International Service Award for 2026, for his longstanding and outstanding contributions to the global cardiology community. Notably, he is the first Singaporean cardiologist to have received a distinguished ACC award, reflecting both individual excellence and NUHCS' growing influence on the international stage.



Adj Prof Poh Kian Keong receiving his award

Beyond his milestone achievement, Adj Prof Poh remained a prominent role throughout the conference. Serving as a Poster Moderator on lipoprotein(a)¹, he shared expert perspectives on this increasingly significant cardiovascular risk factor and sparked deeper scientific discussion. He also co-chaired a session connecting young attendees and cardiologists, promoting research and scientific development, while nurturing the next generation of cardiovascular leaders to broaden academic and professional impact globally.



Adj A/Prof William Kong with Adj Prof Poh at ACC 2026

Adj A/Prof William Kong, Senior Consultant, Department of Cardiology, NUHCS, and American College of Cardiology Chapter Governor for Singapore, also attended the ACC 2026 Convocation alongside Adj Prof Poh, celebrating new Fellows (FACC) and Masters (MACC),

honouring the award recipients and incoming leadership in the field of cardiovascular medicine.

NUHCS' academic strength was further highlighted through abstract presentations by junior doctors. Dr Jamie Ho, Junior Resident, National University Health System (NUHS), presented findings on the use of GLP-1 agonists² following acute myocardial infarction³, demonstrating their potential to reduce major adverse cardiovascular events. Meanwhile, Dr David Ho, Junior Resident, NUHS, shared research on novel non-invasive markers of right ventricular-pulmonary artery coupling in rheumatic mitral stenosis, highlighting prognostic value beyond conventional measures.

Collectively, these achievements underscore NUHCS' commitment to advancing cardiovascular science, nurturing future clinician-researchers, and strengthening Singapore's presence on the global academic stage.

References:

- Lipoprotein(a)** – A genetically determined lipoprotein particle similar to LDL but with an additional apolipoprotein(a) attached, associated with increased risk of cardiovascular disease.
- GLP-1 agonists** – Medications that mimic a natural hormone in your body to help control blood sugar and reduce appetite.
- Acute myocardial infarction** – Also known as a heart attack when blood flow to the heart is suddenly blocked.

ARTICLE BY

Dr David Ho

Junior Resident, Internal Medicine, NUHS

Dr David Ho is a third year internal Medicine Junior Resident in NUHS. He has a strong interest in cardiovascular health with a special interest in valvular heart disease.



Making History at ACC 2026

Prof Poh Kian Keong is Singapore's only recipient of the American College of Cardiology's Distinguished Awards



Prof Poh Kian Keong, Director of Research and Senior Consultant, Department of Cardiology, National University Heart Centre, Singapore (NUHCS), and Associate Chairman Medical Board, National University Hospital, is the distinguished recipient of the 2026 Navin C. Nanda International Service Award.

In the 75th edition of the American College of Cardiology (ACC) Award scientific session, Prof Poh is the first and only Singaporean cardiologist to

have received an ACC Distinguished Award.

This prestigious distinction underscores the exceptional global impact of his contributions in the field of cardiology, recognising him as a leading voice in advancing cardiovascular practice worldwide.

Advancing Care Across Borders

At the heart of Prof Poh's recognition

is his unwavering commitment to improving cardiovascular care beyond national boundaries. As a key contributor to the ACC's Global ACCeleration strategy – an initiative focused on expanding global access to cardiovascular education, innovation, and best practices – he has championed efforts to ensure that advances in cardiology benefit patients across diverse healthcare settings.



About the Navin C. Nanda International Service Award

One of the ACC's Distinguished Awards, the Navin C. Nanda International Service Award – named in honour of Dr Navin C. Nanda – recognises outstanding contributions to cardiovascular medicine and international service, honouring individuals who have advanced cardiovascular care throughout the world.

About the American College of Cardiology (ACC)

A non-profit medical society, dedicated to enhancing the lives of cardiovascular patients through continuous improvements in patient-centered care, education, research and advocacy. Consisting of a diverse group of cardiology professionals including cardiologists, cardiac surgeons, fellows, residents, nurses, and researchers, this organisation offers a range of educational and research opportunities for advancements in the field of cardiovascular health across the globe.

From 2021 to 2023, as Chair of the Assembly of International Governors, Prof Poh strengthened collaboration among ACC global chapters and deepened engagement across Asia and beyond. His leadership helped foster a more connected and coordinated international cardiovascular community.

Did you know?

Cardiovascular disease remains the leading cause of death worldwide. International collaborations such as the ACC's Global ACCeleration strategy help clinicians, researchers and healthcare institutions share knowledge and best practices to improve cardiovascular outcomes across different healthcare systems.

Shaping Cardiovascular Knowledge

Beyond leadership roles, Prof Poh has made significant contributions to cardiovascular research and education. With hundreds of peer-reviewed publications and presentations at major international conferences, his work continues to influence clinical practice and scientific understanding in cardiology. He currently serves as the Clinical Cardiology Section Editor for the *Journal of the American College of Cardiology (JACC): Asia* and has held editorial roles in leading cardiovascular journals, shaping global discourse in cardiovascular medicine.

"Kian Keong Poh has demonstrated remarkable work that will bolster the ACC's mission to transform cardiovascular care and improve heart health for all."

**- ACC President
Christopher M. Kramer,
MD, FACC**



Prof Poh Kian Keong, Director of Research and Senior Consultant, Department of Cardiology, NUHCS (far right), pictured with other award recipients

Driving the Next Generation of Cardiology

Prof Poh has also played an active role in medical education and mentorship, guiding numerous young cardiologists in Singapore and internationally. He has contributed extensively to major platforms such as the ACC Asia Scientific Meeting and the ACC Annual Scientific Sessions as faculty¹ and abstract grader. His involvement in the Lifelong Learning Oversight Committee reflects his belief in continuous professional development, ensuring clinicians remain at the forefront of evolving cardiovascular science and practice.

"Through cardiology efforts across Singapore, Asia, the United States and beyond, we are able to collectively improve cardiovascular outcomes internationally. At NUHCS, this commitment to advancing cardiovascular care through research, education and collaboration underpins our contributions to global cardiology."

- Prof Poh Kian Keong



Scan to watch Prof Poh's acceptance speech

Impact Beyond Borders

Prof Poh's recognition by the ACC marks not only an individual milestone, but also reflects NUHCS' broader commitment to advancing cardiovascular care globally. Through sustained contributions in research, education, and international collaboration, NUHCS continues to play an active role in improving cardiovascular outcomes worldwide.



Plaque presented to Prof Poh honouring his contributions

Read more from the following news article:



References:

1. Faculty – Group of specialists, doctors, clinicians, educators and researchers involved in training or mentoring within the institution.

ARTICLE BY

NUHCS PULSE Editorial

ILLUMINATING LIFE WITH PULMONARY HYPERTENSION (PH) THROUGH SHARED STORIES

Highlighting journeys of strength and courage at the Blue Lips 2025 event



NUHCS clinical team with the Pulmonary Hypertension Singapore support group.



From left to right: A/Prof James Yip, Executive Director, NUHCS; Ms Susie Tay, patient with PH; and Adj A/Prof Low Ting Ting, Director, Women's Heart Health Programme, NUHCS

For someone living with Pulmonary Hypertension (PH), even a short walk can feel like a climb. PH is a type of high blood pressure that damages the arteries in the lungs, causing the vessels to become narrowed. This results in the heart working harder to pump blood to the lungs and can eventually lead to the heart muscles weakening and failing. While the condition may not always be visible, its impact is felt in life's simplest moments. For those with PH, activities that many take for granted, such as walking a short distance or climbing a flight of stairs, often require careful pacing, energy, and determination.

To bring greater understanding to these experiences, the National University Heart Centre, Singapore (NUHCS), together with the Pulmonary Hypertension Singapore (PHSG) support group, organised the Blue Lips awareness event on 4 November 2025. Bringing together patients, caregivers, healthcare professionals and members of the public, the event created a space for conversations, shared experiences, and a collective show of support for those living with PH.

About Pulmonary Hypertension Singapore (PHSG) Support Group

Founded by PH survivor Mohd Amin Mubarak with the support of his cardiologist, A/Prof James Yip, Executive Director of NUHCS, PHSG is a support group dedicated to raising awareness of PH, supporting patients and their families, and advocating for better access to care. Through the group's mission and work, PHSG continues to foster a strong and connected community for those living with PH.

Some of the most meaningful moments came from the patients themselves. Through candid conversations, they offered glimpses into the realities of living with the condition. Some shared how they carefully planned their days around their energy levels, while others spoke about setting small, meaningful goals and maintaining routines that gave them a sense of normalcy. These were not dramatic milestones, but steady commitments with deeply personal victories.

Across every story, there was a common thread: success did not always come from big accomplishments. Often, it showed up quietly in perseverance, mindset, and the decision to keep going.

Around the event, small acts of support quietly took shape. At the Blue Lips Message Board, visitors paused to write heartfelt notes on lip-shaped stickers, filling the space with words of encouragement and solidarity. Some messages offered strength. Others simply said, "You are not alone." Together, they formed a quiet yet powerful reminder that no one living with PH is alone in their journey.

Patients from the PHSG support group exchanging stories, cheering one another on.



Writing a thoughtful message to the PH community.



Leaving a mark of encouragement

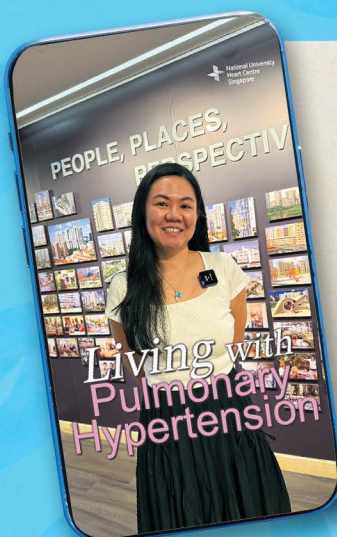


Did you know?

Blue lips are not always caused by the cold — they can be a sign of low oxygen levels in the blood, a condition known as cyanosis, which is common in people with PH. If you notice symptoms such as blue lips, shortness of breath, dizziness, or chest pain, do seek medical attention promptly.

More than anything, Blue Lips 2025 highlighted the importance of community. Patients came together to share openly, finding comfort and encouragement in one another's experiences. For those living with PH, it was an opportunity to feel seen and understood. For others, it offered a deeper appreciation of what living with PH truly means.

In the end, the event was not just about awareness. It was about people — their stories, their resilience, and the quiet courage that carries them forward each day.



Scan to watch Kai Lin (left) share her inspiring journey and discover how she continues to live life to the fullest while managing PH.



Scan to discover more via this news feature.

(Note: article is in Mandarin)

ARTICLE BY

NUHCS PULSE Editorial

NUHCS

Party 2026

Celebrating
the Community
Behind the Care



At the National University Heart Centre, Singapore (NUHCS), the commitment to deliver excellent cardiovascular care is a shared mission that brings people together every day. Beyond the demands of clinical work, there is also a shared understanding that sustaining this work requires time to connect,

recharge, and celebrate one another. This spirit came alive at the NUHCS Party 2026, an annual gathering that reflects not just a tradition, but a culture where teams who give their best for patients also make time to connect and simply enjoy being together.



Held on 7 March, the event brought colleagues from across departments together in a rare moment away from their usual routines, whether in clinics, wards, operating theatres, or offices.

This year's theme, "Dress In Your Own Generation," added a playful dimension to the celebration. From retro looks to iconic characters, staff embraced the opportunity to express themselves in creative and unexpected ways.

In his opening address, A/Prof James Yip, Executive Director of NUHCS, expressed appreciation for the dedication and resilience demonstrated by staff throughout the year. His message reinforced that clinical excellence

at NUHCS is made possible by the people behind it, whose skill and commitment make all the difference in the patient care.

Bringing colleagues from different parts of NUHCS into the same space, the evening offered a chance to reconnect beyond the pace of daily work. Conversations flowed more easily, familiar faces met outside their usual settings, and new connections were formed. These moments, while simple, are what strengthen the sense of teamwork and trust that continues back in the workplace.

As the organisation moves forward, the importance of coming together remains unchanged. At the heart of NUHCS is not just the care provided, but the people who make it possible, supporting one another, growing together, and finding moments of joy along the way.



A/Prof James Yip, Executive Director of NUHCS, starting the party in true Elvis fashion.



Prof Tan Huay Cheem, Senior Advisor, NUHCS, takes centre stage for the "Think You Can Sing" Award.



A/Prof Mark Chan, Deputy Executive Director of NUHCS, rocking the stage, Guns N' Roses style for the Best Dressed Competition!

ARTICLE BY
NUHCS PULSE Editorial

Heartfelt Celebrations

Highlights from Caring Hearts Support Group (CHSG)

Voices of Hope

One of the most moving moments of our 2025 festive season was when our members traded patient gowns for Santa hats, bringing Christmas carols into the foyer and cardiac wards of the National University Heart Centre, Singapore (NUHCS).

For many of us, this journey felt deeply personal. Not long ago, some of us were patients in those very wards, taking recovery one day at a time amid uncertainty. Returning now as a choir of survivors carried a powerful message for those behind the doors: there is life, music and joy after a cardiac event. As our voices echoed through the wards, we were not just singing — we were sharing living proof of recovery.



CHSG spreads festive cheer through song, joined by Prof Tan Huay Cheem, Senior Advisor, NUHCS (right)



About CHSG

A voluntary initiative by patients for patients at NUHCS, this support group was launched with the vision to build an inspiring and caring heart patient support group that stays connected, while supporting fellow cardiac patients and the community through each other's journey to remain heart healthy.

Join CHSG!

Membership is open to heart patients who have completed the Basic Cardiac Rehabilitation Programme at NUHCS. For more information about CHSG or to join CHSG, please contact Magdalene Chia, Volunteer Lead, at mchia@kucinta.com.



A Season of Sharing

The echoes of our carols had barely faded when we gathered for our CHSG Year-end Celebration. It was a reminder that while our hearts may carry scars, they are also fuller than ever. The evening was not defined by decorations or food, but by the people in the room and the bonds we have built together.

Conversations flowed easily beyond recovery updates. We shared stories of long-awaited holidays, time spent with grandchildren, and new hobbies discovered along the way. Seeing our members vibrant and strong was, in itself, a celebration.

A meaningful moment came during our "Circle of Strength" where we paused to reflect on the year behind us, both its challenges and its victories, big or small. It reminded us of something simple but powerful: we are not just patients; we are a family. Whether six weeks or six years into recovery, each of us carries a story that can encourage someone else.



From Recovery to Vitality — Celebrating 8 Remarkable Years

This year's 8th anniversary of CHSG feels especially auspicious as it coincides not only with the Lunar New Year, but also with the Year of the Fire Horse!

In Chinese culture, the horse symbolises strength, endurance, and vitality — qualities that resonate deeply with our cardiac patient community. Just as the horse is known for its steady momentum, our members continue to “gallop” toward their health goals with resilience and heart.

Together with Prof Tan Huay Cheem, Senior Advisor, NUHCS, A/Prof James Yip, Executive Director, NUHCS, A/Prof Raymond Wong, Head of Department of Cardiology, NUHCS, Dr Yeo Tee Joo, Director of Cardiac Rehabilitation Unit, NUHCS, and the rest of the NUHCS team, we marked this milestone by reflecting on a shared mission — one dedicated to empowering heart patients and fostering a heart-strong lifestyle.

Dr Yeo Tee Joo, Director of Cardiac Rehabilitation Unit, NUHCS, warmly welcomes everyone to CHSG's 8th Anniversary celebration



A/Prof James Yip, Executive Director, NUHCS (left), exchanges mandarin oranges with a young CHSG member



A Journey of Resilience

Since CHSG was launched on 3 March 2018, our goal has been to bridge the gap between medical treatment and long-term recovery. Healing does not end at discharge. It continues through emotional support, shared understanding and lifestyle change.

Over the past eight years, CHSG has become a safe space where members speak openly, celebrate progress, and support one another. For many, it has grown into a second family.

This anniversary is not simply about marking time. It is about celebrating life, second chances, and the strength we find in one another.

“This is not about surviving. It is about thriving.”

A Celebration of Action

As CHSG steps into its ninth year, the commitment to heart health remains strong. We renewed our pledge: *Exercise and Love Your Heart*, alongside the launch of a new dry-fit exercise T-shirt.

More than apparel, it represents a shared promise to keep moving, stay active, and care for our hearts together.

During the celebration, we also took part in a simple exercise session, moving together as one group. It was a reminder that heart health is shaped not only in hospitals, but also through daily choices, consistency and encouragement from those around us.

This was followed by a joyful sing-along that filled the room with music and laughter. It was a simple moment, yet one that brought everyone closer.



Stretching strong with resistance bands

The Heartbeat of the Community

As we reflect on both our year-end celebration and our 8th anniversary, one truth stands clear: a supported heart is a stronger heart.

What began as a small support group has grown into a community built on shared experience, resilience, and mutual encouragement. We are not only patients or caregivers; we are survivors, thrivers and supporters walking this journey together.

CHSG continues to remind us that recovery does not end at discharge. It continues in daily life, in small steps forward, and in the connections we build along the way.

As we look ahead, we do so with gratitude for how far we have come and a quiet hope for what is still to come.

Alone, we can do so little. Together, we can do so much.

Here's to many more years of friendship, resilience and heart-strong members, as “Caring Begins With Me”.

Happy 8th Anniversary, CHSG!

To commemorate the occasion, members were newly launched maroon-purple T-shirts and caps – a true “uniform of resilience”. It was a powerful sight, representing every step taken and every milestone achieved.



The celebration continued with an anniversary cake cutting and a lively *Lo Hei* (Prosperity Toss). Doctors, patients, caregivers, and families gathered together, tossing ingredients high into the air – a joyful symbol of letting go of past challenges and reaching higher for a healthier future.



Happy 8th Anniversary, CHSG!



ARTICLE BY:

Magdalene Chia
Volunteer Lead, Caring Hearts
Support Group (CHSG)

ADVANCING ON THE GLOBAL STAGE

NUHCS at ESC Heart & Stroke and EuroThrombosis 2025

Last November, the historic city of Milan set the stage for an important milestone in cardiovascular and stroke medicine. From 15-16 November 2025, the first joint scientific meeting of the European Society of Cardiology (ESC) Heart & Stroke and EuroThrombosis communities brought together leading experts to explore the evolving field of heart-brain medicine.

Held at the University of Milan, the meeting united two major ESC groups – the Council on Stroke and the Working Group on Thrombosis¹ – in a shared effort to better understand the complex links between cardiovascular and cerebrovascular disease².

Designed as a cross-disciplinary meeting, the programme comprised state-of-the-art lectures, interactive case-based sessions, and multiple moderated poster presentations on crucial topics including:

Atrial fibrillation³

Acute⁴ and chronic coronary syndrome⁵

Intracardiac thrombosis⁶

Interventional strategies for stroke management

Contemporary themes of digital health and equity in health access

Primary and secondary prevention strategies

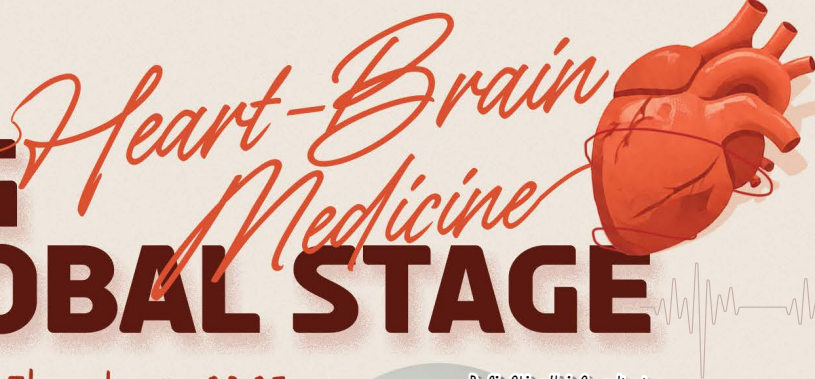
Cardiovascular diseases (CVD) in special populations (malignancy, chronic kidney disease, multimorbidity and frailty)

The National University Heart Centre, Singapore (NUHCS) was strongly represented by a diverse team of 11 participants, ranging from medical students to senior residents⁷. Guided by Dr Sia Ching Hui, Consultant, Department of Cardiology, NUHCS, and Dr Benjamin Tan, Consultant, Division of Neurology, Department of Medicine, National University Hospital (NUH), the group contributed more than 10 research posters⁸, reflecting NUHCS' growing impact in cardiovascular and stroke research.

Singapore Perspective on a Global Stage

Amid a packed programme, two Singapore-led lectures stood out for placing regional priorities within a global context. In Dr Sia's presentation, "The Global Burden of CVD Prevention: Insights and Challenges", he highlighted the importance of fundamentals such as blood pressure control, sustainable healthcare strategies, and equitable access to treatment – issues that remain critical worldwide.

NUHCS' delegates and mentors



Dr Benjamin Tan shared an Asian perspective on how the heart and brain are closely connected in a keynote session on "Navigating Heart-Brain Interactions: A Global Perspective", highlighting the risk factors, causes and symptoms that differ across regions. His presentation spotlighted the care and prevention strategies that need to be tailored to Asia's unique population and healthcare realities, considering how long-term disability and cognitive decline determine future health challenges.

The meeting also marked a proud moment for the team, as Dr Gabriel Kwok, House Officer, NUH, was awarded 2nd prize in the top stroke research abstracts for his work, "Early Post-Stroke Cognitive Impairment in a Young Southeast Asian Cohort". This recognition signals rising global interest in research, particularly in areas that remain underexplored, such as cognitive recovery and return-to-work outcomes after stroke.

The ESC Heart & Stroke and EuroThrombosis 2025 meeting demonstrated the value of collaboration across disciplines in advancing of heart-brain medicine. For NUHCS, it was not only an opportunity to showcase its research and clinical expertise, but also a platform to build new partnerships and ideas. As cardiovascular and stroke care continues to evolve, Singapore's contributions are helping to shape conversations on the global stage, while reinforcing our institute's commitment to improving patient outcomes both regionally and beyond.

References:

1. **Thrombosis** – The formation of a blood clot (thrombus) within a blood vessel or the heart.
2. **Cerebrovascular disease** – A group of conditions that affect blood flow to the brain.
3. **Atrial fibrillation** – An irregular, often rapid heart rhythm caused by disorganised electrical activity in the upper chambers of the heart (atria).
4. **Acute coronary syndrome** – A group of conditions caused by sudden reduced blood flow to the heart.
5. **Chronic coronary syndrome** – A spectrum of stable conditions involving predictable, recurring chest pain or discomfort.
6. **Intracardiac thrombosis** – The formation of blood clot within the heart's structures or chambers.
7. **Senior residents** – Postgraduate medical trainees in a specialised field.
8. **Research posters** – Visual presentations summarising cardiology research findings.



ARTICLE BY

Dr Aloysius Leow
Senior Resident, Department of Cardiology, NUHCS

Dr Aloysius Leow has a strong interest in epidemiology/statistical analysis, cardiovascular health, and multidisciplinary research pertaining to Neurocardiology.

Building Smarter, Quicker Heart Care

*Opening of the new NUHCS Angiography Centre
and Diagnostic Cardiac Laboratory @ L1*

When it comes to heart health, timely diagnosis can make all the difference. At the National University Heart Centre, Singapore (NUHCS), ongoing upgrades are helping patients receive faster, more seamless cardiovascular care – from their first diagnostic test, to treatment and recovery.

Additional appointment slots for quicker scans

The newly expanded NUHCS Diagnostic Cardiac Laboratory @ L1 is designed with both efficiency and comfort in mind. With a larger waiting area, additional rooms, and increased diagnostic testing capacity, the facility is able to accommodate more patients each day and reduce waiting times for key cardiac investigations.

This means patients can undergo diagnostic tests such as echocardiography, exercise stress tests and cardiac imaging tests, more promptly. Earlier access to these diagnostic tests can support earlier detection of heart conditions, which are critical in ensuring timely treatment and better recovery.

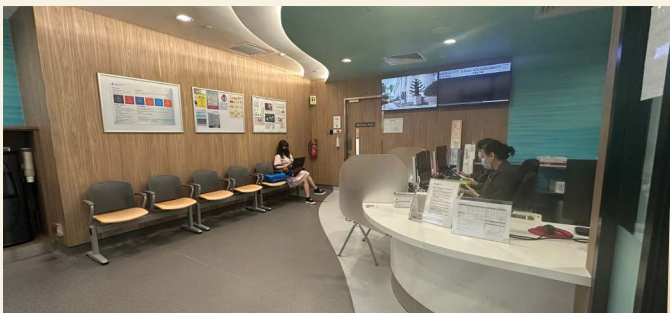
Upgrading the NUHCS Angiography Centre

The NUHCS Angiography Centre, where specialised procedures are performed to diagnose and treat a range of complex cardiovascular conditions including blocked arteries and heart rhythm disorders, has recently undergone a major renovation aimed at improving both patient experience and access to care.

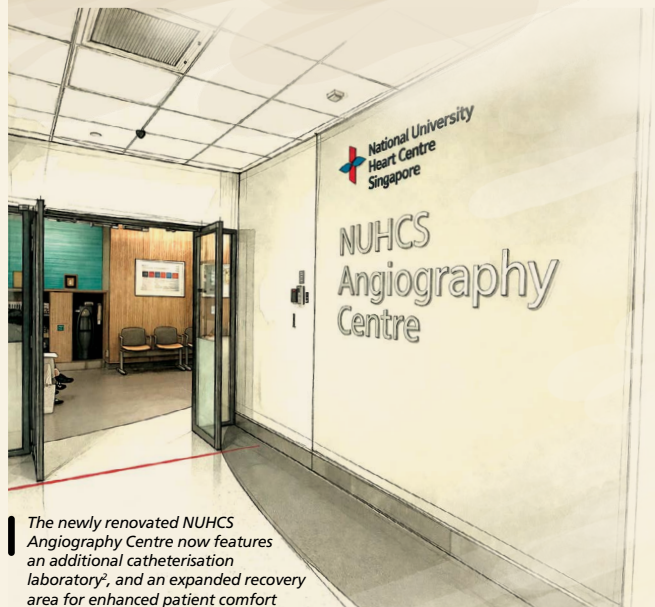
The refreshed centre features upgraded imaging technology, increased recovery area capacity with a more comfortable and reassuring environment for patients before, during and after their procedures. These improvements allow clinical teams to manage both emergency cases, such as heart attacks and cardiac arrests, and elective cases' more efficiently, helping patients receive timely treatment when every minute counts. For patients and their families, this means shorter waiting time to receive care, and improved comfort during recovery.



The opening of the fourth catheterisation laboratory² (top) and expanded reception area (bottom) at the NUHCS Angiography Centre



Opening of NUHCS Diagnostic Cardiac Laboratory @ L1 in Jan 2026



The newly renovated NUHCS Angiography Centre now features an additional catheterisation laboratory², and an expanded recovery area for enhanced patient comfort

These facility enhancements are among many to come, reflecting NUHCS' ongoing commitment to delivering the highest standard of patient care on the journey to better heart health.

References:

1. **Elective** – Surgical procedures that are scheduled in advance rather than performed as emergencies.
2. **Catheterisation Laboratory** – Facility equipped for imaging systems for minimally invasive cardiac diagnostic or interventional procedures.

ARTICLE BY
NUHCS PULSE Editorial

Nurturing the next generation of ECMO experts

Advancing critical care management with Singapore's only ELSO-endorsed ECMO Course at NUHCS

The National University Heart Centre, Singapore (NUHCS), marked a significant milestone in advancing extracorporeal education with the successful launch of its inaugural Extracorporeal Life Support Organisation (ELSO)-endorsed Extracorporeal Membrane Oxygenation (ECMO) course. Held from 15 to 16 May 2026, the programme brought together healthcare professionals from across the region, including participants from the United States, for an immersive learning experience focused on caring for critically ill patients with severe heart and lungs conditions.



What is Extracorporeal Life Support Organisation (ELSO)?

An international non-profit consortium of healthcare institutions, researchers, providers and industry partners that help medical institutions deliver ECMO support through continuing education, guidelines, original research, publications and a comprehensive registry of patient data. Established in 1989, ELSO is the world's largest ECMO society with over 700 member centres worldwide.



What is Extracorporeal Membrane Oxygenation (ECMO)?

A highly-specialised and complex form of life support that temporarily takes over the functions of the heart and lungs for critically ill patients when conventional treatments are no longer effective. ECMO does not treat heart failure but simply provides more time for treatment from medical experts including specially trained nurses, perfusionists, cardiac surgeons and Intensive Care Unit (ICU) physicians.



Through a combination of lectures, simulation-based learning and hands-on workshops, participants gained practical insights into the full spectrum of ECMO care.

As the first and only institution in Singapore to offer an ELSO-endorsed ECMO course, NUHCS reinforces its commitment to advancing excellence in critical care education.

Led by Course Director Adj A/Prof Ramanathan K.R., Senior Consultant, Division of Cardiothoracic Intensive Care Unit (CTICU), Department of Cardiac, Thoracic and Vascular Surgery (CTVS), NUHCS, the two-day programme was facilitated by a multidisciplinary faculty comprising clinicians, perfusionists¹, nurses, and physiotherapists.

Key learning areas:

✓ ECMO fundamentals and physiology

Understanding the history and overview of how contemporary ECMO supports patients with severe heart and lung failure, and the principles behind its safe and effective use.

✓ ECMO circuit and life-support technology

Learning how to operate and troubleshoot the life-support machine (ECMO), heart-lung circuit (perfusion) and specialised equipment to oxygenate blood and support critically ill patients.

✓ Starting, managing and weaning ECMO

Exploring a patient's ECMO journey and learning to handle ECMO on different patient demographics – including moving patients on ECMO, connecting and disconnecting a patient to the machine, monitoring treatment, managing oxygenation differences, to safely weaning them off ECMO.

✓ Patient-centered ECMO care

Understanding the individual and collaborative roles of nursing management, rehabilitation-related care and specialised paediatric ECMO management in supporting patients throughout their treatment and recovery.

✓ Virtual Reality (VR) demonstrations

Through immersive VR technology, participants explored the ECMO circuit in 3D, visualising how blood is rerouted outside the body for oxygenation before being safely returned – bridging the gap between theoretical learning and real-world anatomy.

✓ Simulation and case-based discussions

Applying knowledge to real-world scenarios through realistic simulations, virtual reality demonstrations and clinical case discussions to strengthen multidisciplinary teamwork, communication and decision-making in emergency situations.

One core takeaway of the course was the hands-on simulation training, where participants practiced essential ECMO skills in a safe learning environment while receiving guidance from experienced faculty members. Through realistic clinical scenarios, they were challenged to apply their knowledge, troubleshoot complications and make critical clinical decisions under pressure.

Beyond technical competencies, the programme emphasised the importance of timely clinical judgement, effective communication and multidisciplinary collaboration in improving outcomes for patients requiring ECMO support. Bringing together clinicians, nurses, perfusionists, and allied health professionals, the course fostered meaningful knowledge exchange and strengthened professional networks within the ECMO community.



**"Give a man a fish, he lives his day;
teach him how to fish, he will live
his life"**

– Course Director Adj A/Prof Ramanathan K.R., Senior Consultant, Division of CTICU, Department of CTVS, NUHCS

**"Excellent quality in case discussions
and simulations with good amount of
hands-on"**

– Testimonial from a course participant

As the first of its kind in Singapore, this ECMO course concluded on a high note, featuring intensive guidance of best practices by subject matter experts, strengthening clinical confidence and decision-making skills, while also fostering camaraderie among participants, building a more connected community for heart-lung care.

As ECMO continues to evolve as a critical therapy for severe heart and lung failure, NUHCS remains dedicated to nurturing the next generation of ECMO professionals and driving excellence in cardiothoracic care through education, innovation and collaboration.



Reference:

1. **Perfusionist** – Medical professional who operates the heart-lung machine, that takes over the work of the heart and lungs, during open-heart surgery.

ARTICLE BY
NUHCS PULSE Editorial

From Research to Recognition

A cardiology trainee's unexpected opportunity on an international stage

In medical research, publication often marks the culmination of months, sometimes years, of hard work. For Dr Elinor Tan, Senior Resident, Department of Cardiology, NUHCS, however, her publication became the start of an unexpected opportunity that would bring her work to an international audience. Dr Tan's study, **"Survival benefit of guideline-directed medical therapy in older patients with heart failure: a systematic review and meta-analysis"**, explored an important question faced by clinicians caring for older patients with heart failure: are concerns about frailty leading to some patients receiving less treatment than they could potentially benefit from?

Published in Heart BMJ, the study comes at a time when populations around the world are ageing rapidly, underscoring the need for more evidence to guide the care of older patients and support more personalised treatment strategies.

Among those who took notice was Prof James Rudd, Professor of Cardiovascular Medicine at the University of Cambridge and host of the internationally renowned *Heart Podcast*.

To Dr Tan's surprise, she received a personal email invitation from Prof Rudd to discuss her findings on the podcast, an opportunity few early-career clinicians have the chance to experience in their academic career. Still in her third year of cardiology training, Dr Tan described the invitation as both unexpected and deeply encouraging.

▶ Dr Elinor Tan, Senior Resident, Department of Cardiology, NUHCS (right), joined Prof James Rudd (left) from the University of Cambridge on the internationally renowned *Heart Podcast*.

Heart BMJ



One of the leading medical journals in cardiovascular medicine and surgery, it was established in 1939 under the name *British Heart Journal*. Its affiliated podcast, the *Heart Podcast*, is dedicated to bringing the latest insights and developments in cardiovascular research and treatments to a broader audience.

Despite initially feeling daunted, she found the discussion with Prof Rudd to be a meaningful exchange. Their conversation explored the challenges clinicians face in caring for older, frail patients with heart failure, and how the lack of evidence specific to this group may sometimes led to more conservative treatment decisions.

Prof Rudd's interest in the study reflects the growing importance of this area of research. As populations continue to age, there is increasing recognition of the need to better understand frailty, treatment tolerability and personalised approaches to care, so that older patients with heart failure can receive therapies that are both appropriate and evidence-based.

For Dr Tan, what began as a research project became an opportunity to contribute to a wider conversation on improving care for older patients living with heart failure. Her experience serves as a reminder that meaningful advances in medicine often begins with asking important questions, and that curiosity, perseverance and a commitment to patient care can create impact at any stage of one's professional journey.

As a third-year cardiology trainee, being personally invited onto an internationally recognised platform to discuss research that addresses challenges faced by older patients living with heart failure was unexpected, humbling, and deeply encouraging.

– Dr Elinor Tan, Senior Resident, Department of Cardiology, NUHCS



Scan to read
Dr Tan's
research paper

Listen on Apple Podcasts:



Listen on Podbean:



Listen on Spotify:



ARTICLE BY

NUHCS PULSE Editorial

Over 20 years of cardiology expertise in one book

Launch of the Case-based Comprehensive Cardiology Book

The National University Heart Centre, Singapore (NUHCS) has launched a new cardiology textbook that transforms more than two decades of clinical experience into a practical, case-based learning resource for doctors.

Titled **Case-based Comprehensive Cardiology**, the book reflects a shared effort to bring real-world clinical insights into medical education, helping healthcare professionals learn not only from theory, but from the complexity of real patient cases.

The launch took place on 22 May 2026 at the 19th Asian Society of Cardiovascular Imaging (ASCI) 2026 conference in Singapore, a regional gathering of cardiovascular imaging specialists focused on the latest advances in the field. The event was officiated by Guest-of-Honour, Prof Tan Chorh Chuan, Permanent Secretary, National Research & Development, and S&T Policy & Plans Office.

Authored by NUHCS cardiologists Prof Yeo Tiong Cheng, Group Chief of Cardiology and Senior Consultant, NUHCS, and Prof Poh Kian Keong, Senior Consultant, Department of Cardiology, NUHCS, the textbook represents their collective expertise — with contributions from cardiologists and radiologists across NUHCS and National University Hospital — condensed into an immersive, interactive learning experience. Built around real-world cases and dynamic imaging videos, this new publication endeavor brings cardiology practice to life beyond the page.

Instead of traditional textbook chapters that focuses mainly on theory, **Case-based Comprehensive Cardiology** is built with clinical questions that guide readers through the diagnostic process with clear explanations, evidence-based answers and practical discussions. This creates an immersive and comprehensible learning experience needed to manage a wide range of cardiac conditions in everyday practice.

Modern imaging plays a central role throughout the book. Actual images from Computerised Tomography (CT) coronary angiography¹ and cardiac Magnetic Resonance Imaging (MRI)² are integrated as interactive video formats into the case analysis, helping readers visualise first-hand and understand how these tools inform diagnosis and guide treatment decisions. Through a simple scan of a QR code found next to each clinical case analysis, readers can easily access the diagnostic imaging footage to practise and apply their clinical knowledge.

The book covers a broad spectrum of cardiovascular conditions, ranging from common diseases such as coronary

artery disease³ and valvular disorders⁴ to more complex conditions including cardiomyopathies⁵, congenital heart disease⁶, and rhythm disorders. Designed for doctors in training and healthcare professionals across different specialties, it serves as a practical guide that complements hands-on clinical experience with evidence-based insights.

Beyond the textbook itself, **Case-based Comprehensive Cardiology** reflects a broader commitment to advancing cardiovascular education and supporting the next generation of heart specialists. By translating decades of clinical experience into structured, case-based learning, the book helps equip healthcare professionals with the knowledge and confidence to deliver high-quality, patient-centered cardiac care.

Prof Yeo Tiong Cheng, Group Chief of Cardiology and Senior Consultant, NUHCS (second from left), and Prof Poh Kian Keong, Senior Consultant, Department of Cardiology, NUHCS (second from right), joined by Guest-of-Honour Prof Tan Chorh Chuan, Permanent Secretary, National Research & Development, and S&T Policy & Plans Office (far left), and A/Prof James Yip, Executive Director, NUHCS, at the launch of the **Case-based Comprehensive Cardiology** book.



Scan to find out more about the book:



References:

1. **Computerised Tomography (CT) coronary angiography** – A scan that uses X-rays to create detailed images of the heart's blood vessels to check for blockages or narrowed arteries.
2. **Cardiac Magnetic Resonance Imaging (MRI)** – A non-invasive scan that uses magnetic fields and radio waves to create images of the heart, allowing assessment of its structure and function.
3. **Coronary Artery Disease** – A heart condition where blood vessels that supply blood to the heart become narrowed or blocked.
4. **Valvular disorders** – Conditions where one or more of the heart's valves do not open and close properly, affecting the normal flow of blood through the heart.
5. **Cardiomyopathies** – Diseases of the heart muscle that affect the heart's ability to pump blood effectively.
6. **Congenital heart disease** – Heart conditions that are present from birth, caused by abnormalities in the way the heart forms or functions.

ARTICLE BY

NUHCS PULSE Editorial

Stay on track to keep your heart in check

A safer & healthier fitness journey with NUHCS Sports Cardiology

Exercise has become more than just a fitness trend. From first-time runners to weekend cyclists and HYROX competitors, more people are embracing active lifestyles to improve their health and wellbeing.

While regular exercise is essential for heart health, pushing the body beyond its limits without proper guidance may increase cardiovascular risks, especially for individuals with underlying conditions or undetected heart disease. Understanding how to exercise safely is just as important as staying active.

At the National University Heart Centre, Singapore (NUHCS), the Sports Cardiology Programme supports individuals in exercising safely and confidently through personalised assessments, medical screening and guided exercise planning tailored to each individual's heart health and fitness goals. Whether beginning a fitness journey, returning to exercise after a cardiac event or training for endurance sports, individuals are guided to stay active with greater reassurance.

What is NUHCS Sports Cardiology?

A specialised medical service at NUHCS, focused on supporting individuals exercise safely while protecting their cardiovascular health. Through personalised evaluations and expert guidance, the programme supports patients and athletes in building confidence and consistency in their fitness journey.

Tips for safer workouts

Skip intense workouts when you are unwell

Rest now so you can come back stronger

Listen to your body

Stop if something feels wrong

Adjust for your environment

Heat and crowds affect performance

Fuel and hydrate well

Water + proper meals = better workouts

NUHCS Sports Cardiology Programme



Pre-participation screening

- Heart health assessment before starting exercise or competitive sports.
- Helps determine fitness suitability for activities such as marathons, HYROX or other endurance events.
- May identify underlying cardiovascular risks early for safer participation.



Individualised exercise prescription

- Tailored exercise plans based on individuals' fitness level and cardiovascular health.
- Assessments may include treadmill exercise stress Electrocardiogram (ECG) and Cardiopulmonary Exercise Testing (CPET), to better understand how the heart responds to physical activity.



Cardiac rehabilitation

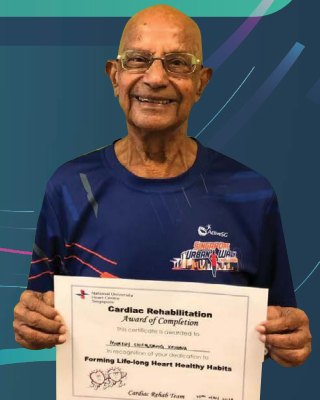
- Designed for individuals recovering from heart surgery or cardiac conditions.
- Provides medically-supervised exercise and lifestyle support, to help patients regain confidence in returning to physical activity safely.

Rebuilding Strength Through Cardiac Rehabilitation

Exercise-based cardiac rehabilitation has been shown to reduce the risk of recurrence and improve outcomes in patients with coronary artery disease, including those recovering from heart attacks.

At NUHCS, the multidisciplinary Cardiac Rehabilitation team provides supervised training, education and personalised support for patients recovering from heart conditions or surgeries. Beyond physical recovery, the programme also helps patients rebuild confidence and adopt sustainable heart-healthy habits for the long term.

One inspiring example is 87-year-old Dr C. K. Murthy, a graduate of the programme, who successfully took part in a half-marathon in 2024 after undergoing two heart surgeries. His journey reflects how structured rehabilitation can support safe recovery and empower patients to return to the activities they love. (Refer to PULSE Issue 44, Page 22, to read more on Dr Murthy's story.)



The Three Pillars of Cardiac Rehabilitation at NUHCS

Education

Patients receive guidance on their condition, treatment plans, risk factors and advice on exercising safely during recovery

Counselling

Patients and caregivers are supported throughout recovery with advice, encouragement and practical guidance

Prescribed exercise training

Structured and supervised exercise programmes - patients are guided to rebuild their strength progressively and safely.

Why Exercise Matters For Your Heart?

Regular exercise strengthens the heart, improving its ability to pump oxygen-rich blood efficiently throughout the body. This supports better blood circulation, lowers blood pressure, and contributes to better long-term cardiovascular health.

A 30-minute brisk walk daily can help support a healthier heart and overall wellbeing.

Scan for quick and simple heart-healthy workouts on NUHCS' YouTube:



**10-minute
warm up
exercises**



**Resistance
training using
TheraBand**

Exercising Safely Starts with Understanding Your Heart

Whether preparing for a first 5km run, returning to exercise after a cardiac condition or striving for peak athletic performance, understanding your heart is an important step towards staying active safely and confidently.

With personalised care, rehabilitation and guided support, NUHCS Sports Cardiology helps individuals pursue their fitness goals while prioritising long-term heart health and well-being.

ARTICLE BY

NUHCS PULSE Editorial

Navigating Women's Heart Health Across Generations

A letter from your heart through every stage of life

Dear You,

I have been with you through every late night, stressful deadline, milestone and new beginning. I worked harder during pregnancy, adapted through hormonal changes, and continued beating through every season of life – often quietly, without complaints. While you have spent much of your life caring for the people around you, I know that looking after me sometimes takes a back seat.

From adolescence to pregnancy, from menopause to ageing, every stage of your life shapes how I function. Yet, Cardiovascular Disease (CVD)¹ remains the leading cause of death among women worldwide, and many heart health risks often go unnoticed until much later in life.

This Women's Heart Health Month in March, I invite you to take a closer look at how I change and respond through the different stages of your life. Understanding what affects me, and recognising when something feels different, can make all the difference in keeping me strong for years to come.

In Your 20s - 30s

These may feel like your strongest years – full of energy, independence and momentum, but they are also the years that lay the foundation for my health in the decades ahead. The choices you make today quietly shape how well I can support you later in life.

✿ Pregnancy

Pregnancy is a time of incredible change, where your body needs to work around the clock to support a new life. As a result, I would need to step up too, pumping up to 50% more blood than usual to nourish your growing baby. Pregnancy-related conditions such as high blood pressure and gestational diabetes, may leave lasting effects on me and signal a higher risk of heart disease later in life. That is why caring for me during pregnancy matters, not only for your baby, but for your future health too.

✿ Smoking

The moment you pick up smoking, I am one of the first to feel its effects. Smoking damages the blood vessels, raises blood pressure, and places me under constant strain – quietly increasing your risk of heart disease over time. The good news is that when you choose to stop, I begin recovering almost immediately, and the benefits continue to grow with time.



Tune in to the "Just Parentings" podcast, where Adj A/Prof Low Ting Ting, Director of the Women's Heart Health Programme at NUHCS, joins local influencer moms to unpack CVD in women.

✿ Sleep

I depend on your rest to function at my best. Yet, in the midst of busy schedules and endless responsibilities, sleep is often sacrificed and replaced with long hours and extra caffeine to keep going. When this becomes a pattern, it affects blood pressure regulation and gradually increases cardiovascular risk.

Even when life gets busy, I never stop responding to the choices you make each day. The habits you build now quietly shape how I can support you in the years ahead.



What's one question every woman should ask her heart doctor at each stage of life? Watch on to find out!

In your 40s - 50s

As you transition into perimenopause² and menopause³ during this stage of life, visible and invisible changes begin to take place. During this stage of life, my risk factors often become more pronounced, even if you may not feel any different.

★ Perimenopause

Hot flashes and mood changes are commonly talked about, but many women do not realise that hormonal changes can affect me as your heart too. As estrogen levels naturally decline, "bad" (LDL) cholesterol may rise while "good" (HDL) cholesterol may fall. Blood pressure may increase, sleep may become more disrupted, and weight changes can become more common. Together, these changes place greater strain on me and increase your risk of cardiovascular disease.

This is one stage of life where I would appreciate a little more attention. Regular screenings can help keep track of blood pressure, cholesterol, and other cardiovascular risk factors, allowing changes to be detected early and managed before they become bigger problems.

In your 60s and above

Ageing brings natural changes, but the silver years can be a meaningful time to strengthen the habits that help me stay healthy and support your quality of life.

★ Mindful salt consumption

As you age, your body becomes more sensitive to salt, and blood pressure can rise more easily. A balanced diet with mindful sodium intake can help keep blood pressure under control and reduce the strain on me.

★ Symptoms I hope you will not ignore

Sometimes, I try to tell you when something is not right. Please do not brush these signs aside as a normal part of ageing:



Chest pain or discomfort during physical activities



Dizziness or fainting spells



Severe or persistent fatigue

These symptoms may signal an underlying heart condition or even a heart attack. Seeking medical attention is key. Regular screenings help detect cardiovascular risk factors early, while prompt treatment can be lifesaving for long-term health.

★ Stay active

I was made to keep moving with you. Regular physical activity, even something as simple as brisk walking, helps me stay strong and healthy.

No matter your age, it is never too late to start caring for me. Small, consistent changes can still make a meaningful difference to your health and wellbeing.



For every season of your life, I have been there with you through new beginnings, career ambitions, motherhood, menopause, and the silver years.

As you change, so do the challenges I face, but one thing remains constant: the importance of caring for me before problems arise. Whether through healthier habits, regular screenings or recognising early warning signs, every small act of care matters. After all, I have spent a lifetime looking after you. I hope you will do the same for me.

Because no matter your age, you deserve many more years with a stronger, healthier heart.

Yours faithfully,
Your Heart



References:

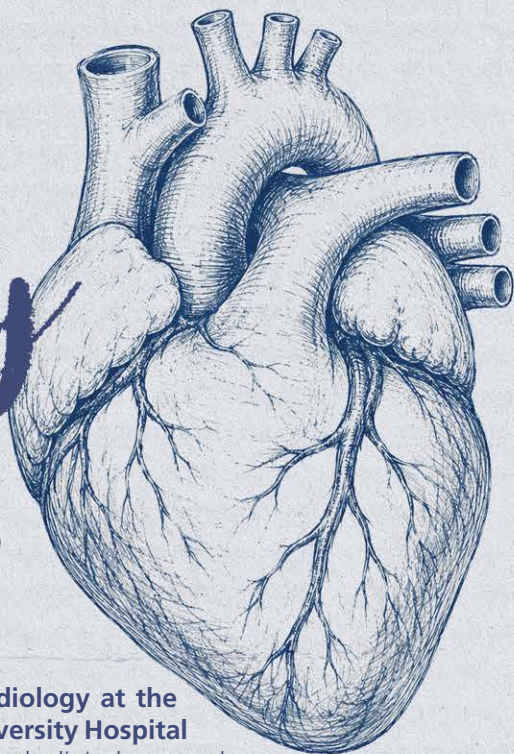
1. **Cardiovascular Disease (CVD)** – Group of conditions that affect the heart and blood vessels, making it hard for blood to flow normally through the body, leading to conditions such as heart attacks, strokes or heart failure.
2. **Perimenopause** – The transition period before menopause, when hormone levels begin to change and menstrual cycles may become irregular.
3. **Menopause** – The stage of life marked by the permanent cessation of menstrual periods, signifying the end of a woman's reproductive years as a result of a natural decline in estrogen and progesterone levels.

ARTICLE BY

NUHCS PULSE Editorial

Leading Cardiology Forward

An interview with the new Head of Cardiology for NUHCS @ National University Hospital (NUH)



Stepping into the new role as the **Head of Department (HOD) of Cardiology at the National University Heart Centre, Singapore (NUHCS) @ National University Hospital (NUH)**, Adj A/Prof Raymond Wong brings with him years of experience in both clinical care and education.

Known for his thoughtful approach and steady leadership, he shares perspectives on the future of cardiology, the challenges that matter most, and what continues to drive him in a field where every decision carries weight.

In this issue, *PULSE* sits down with Adj A/Prof Raymond Wong to uncover more of the journey and commitment behind his practice.

PULSE: Stepping into this new role, what is your vision for cardiology in the next 3-5 years?

Adj A/Prof Wong: Not just for the next five years, but for the decades ahead, my vision for cardiology can be summed up in two words: **quality** and **value**. Quality should define every aspect of care, from diagnostics and procedures to the compassion we bring to patients. At the same time, value must guide how we innovate, allocate resources, and deliver care in a sustainable way. When quality and value go hand in hand, we can achieve the best outcomes for patients and the community, while ensuring care remains accessible and appropriate.

PULSE: What emerging trends should the public pay more attention to?

Adj A/Prof Wong: With rapid scientific advances and the rise of Artificial intelligence (AI), medicine is progressing faster than ever. But just as important is a shift in mindset — to see health as a continuum that includes prevention, treatment, rehabilitation and palliation¹. At the same time, we must recognise the limits of modern medicine. Expecting doctors to be a healer and counsellor all at once may lead to disappointment. Healthcare is where hard science meets humanity, and that balance is not always easy to achieve.

PULSE: What is something about heart health today that concerns you?

Adj A/Prof Wong: Prevention remains my biggest concern. It is easy to talk about prevention, but much harder to practice. Inspiring people to take charge of their health today to avoid problems tomorrow, continues to be one of the greatest challenges. Ultimately, prevention is not just advice. It is a mindset that shapes long-term health.

PULSE: Cardiology is both fast-paced and high-stakes. What do you find most rewarding about this field?

Adj A/Prof Wong: The pace and intensity are exactly what make practicing cardiology so energising. What I find most rewarding is the ability to care for patients across the entire journey — from prevention and early risk management to acute intervention and long-term care, or even palliation when needed. The field continues to evolve, with new treatments, care models, pharmacotherapy², and advanced interventional procedures³, supported by





cutting-edge imaging technologies. That constant progress keeps me engaged and motivated.

PULSE: What inspired you to specialise in cardiology, and how has your passion evolved over the years?

Adj A/Prof Wong: What first drew me to cardiology was the opportunity to make a real difference during cardiac emergencies. The urgency and gravity of those moments demand focus and decisiveness, and that continues to motivate me. Over time, my interest has also grown in understanding heart disease more deeply and exploring new ways to treat it. That sense of discovery keeps the work meaningful.

PULSE: Is there a moment in your career that reminded you why medicine matters so deeply?

Adj A/Prof Wong: With every Cardiopulmonary Resuscitation (CPR), whether successful or not, I am reminded why medicine matters. Delivering difficult news to a patient or family is never easy, and those moments stay with you. At the same time, being able to offer comfort and reassurance gives me the strength and purpose to continue caring for the next patient.

PULSE: Tell us something intriguing about yourself that others may not know.

Adj A/Prof Wong: I speak multiple languages including English, Mandarin, Malay and even dialects such as Hokkien, and sometimes patients assume I am from different parts of the region. Being able to communicate in their preferred language helps build trust and connection.

Outside of work, I stay active through gym sessions, jogging, and recreational badminton. I also enjoy reading and watching sports programmes. I turn to

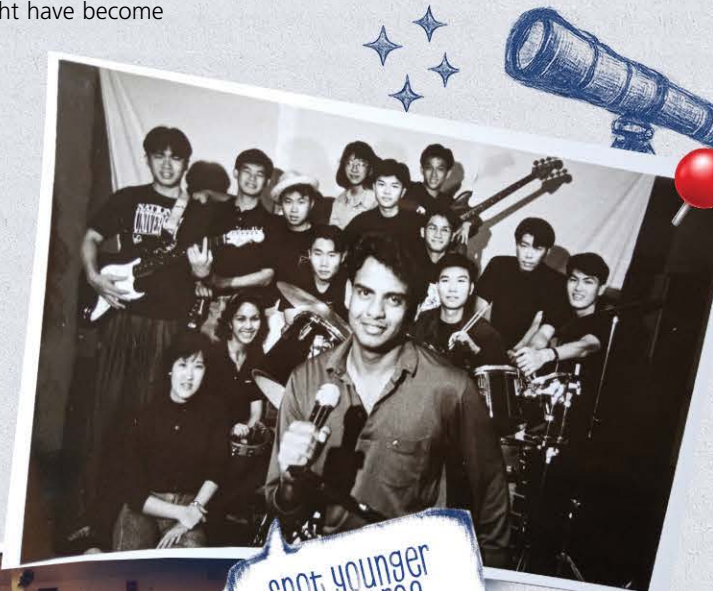
creative writing to help me relieve stress through reflection and to rediscover the nuances of life. Perhaps what surprises people most is that I was once the lead singer of a pop band during my university days. That said, I would do a terrible job if I ever had to dance! In the past, I have also dabbled in competitive badminton, Bridge card games, and volleyball.

PULSE: If you were not a cardiologist, what would you be?

Adj A/Prof Wong: I have always been fascinated by the cosmos. If I had not pursued medicine, I might have become an astrophysicist. I once applied to study aerospace engineering in the United States, with the hope of working at the National Aeronautics and Space Administration (NASA) and contributing to space exploration. The idea of pushing boundaries of human understanding has always inspired me.

PULSE: What excites you most about the future of cardiology?

Adj A/Prof Wong: AI will play a defining role in the future of cardiology. It has the potential to enhance clinical decision-making, analyse complex diagnostic imaging, and even accelerate drug discovery. These advances can significantly improve how we diagnose and treat patients. Importantly, AI will not replace doctors. Instead, it will extend our reach, enhance productivity, and allow doctors to focus more on the human aspects of care.



“ I signed up to be a doctor, but it takes a lifetime to truly understand what that means. No amount of sacrifice ever feels enough to satisfy this ravenous vocation. ”

-Adj A/Prof Raymond Wong, Head, Department of Cardiology, NUHCS @ NUH

References:

1. **Palliative** – Palliative care aims to improve quality of life of patients with serious illnesses by relieving symptoms and improving comfort.
2. **Pharmacotherapy** – Treating or controlling diseases using medications.
3. **Interventional procedures** – Minimally invasive treatments performed using small instruments or catheters.

ARTICLE BY

NUHCS PULSE Editorial

NURTURING THE FUTURE OF *Nursing*

AN INTERVIEW WITH THE New Head OF NURSING FOR NUHCS

With more than two decades of experience in nursing, Ms Nyeo Hui Qing has been at the forefront of key initiatives that have shaped patient care and safety, from leading the hospital-wide rollout of defibrillators¹ to implementing the Next Generation Electronic Medical Record (NGEMR)² in the Intensive Care Unit³, and introducing smart infusion pumps⁴ that enhances medication safety.

Now stepping into her new role as Head of Nursing at the National University Heart Centre, Singapore (NUHCS), where she leads a team of over 300 nurses, she reflects on her journey that defined her career and the values that continue to guide her leadership.

PULSE: What does leading a team of over 300 nurses mean to you personally and professionally?

It is a significant shift – from caring for individual patients to supporting an entire team that delivers care at a large scale, every day. What matters to me is building an environment where nurses feel respected, supported, and confident in their roles. When that happens, it naturally translates into better care at the bedside. I see leadership as recognising each nurse's strengths and helping them grow, while ensuring we maintain consistently high standards of care. It's a responsibility that goes beyond operations. It is about shaping a culture where people can do their best at work.

PULSE: As you begin this new chapter as Head of NUHCS Nursing, what challenges do you expect – and how do you plan to meet them?

One challenge is staying connected with the ground while managing both strategic priorities and day-to-day operations. In a large team, it is easy for distance to grow, and I am very mindful of that.

What reassures me is the strong support system around me. This includes a dedicated nursing team, a supportive operations and communications team, and doctors with whom I have worked closely over the years. I also rely on my mentor for guidance and my best friend who keeps me grounded outside of work. By remaining humble and continuously learning from those around me, I believe I will be able to navigate these challenges effectively.

Ms Nyeo Hui Qing, Head of Nursing, NUHCS

PULSE: In your view, what is the most misunderstood aspect of the nursing profession?

Many people still associate nursing primarily with routine or “dirty” tasks, such as cleaning up after patients. While these are part of providing holistic care, they do not define the profession. Nursing today is highly skilled and requires critical thinking, clinical judgement, and the ability to make timely decisions, often in complex and fast-changing medical situations.

Nurses are often the ones coordinating care, identifying early signs of health deterioration, and ensuring that patients receive the right interventions at the right time. They also play a crucial role in helping patients recover and stay well. Many are also involved in education, research, and in driving improvements across the care system.

What many people may not see is the depth of responsibility that comes with the role. Nursing is not just about completing tasks; it is about advocating for patients, compassion, and professional expertise. It requires both the heart and the mind.

PULSE: What are some hobbies that help you recharge outside of work?

I enjoy simple things like watching Netflix, shopping, and having a good cup of coffee; these small activities help me unwind. I also make it a point to spend quality time with my friends. We try to travel overseas together at least

once a year, and that gives me something to look forward to. These breaks help me step away from work and return with a clearer mind and renewed energy.

PULSE: What advice would you give to those who are considering a career in nursing?

Be prepared for a journey that will challenge you, but also shape you in meaningful ways. Nursing can be demanding as you are caring for patients at their most vulnerable, and supporting families through some of their most difficult moments. At the same time, it is a deeply purposeful work. You develop resilience, sharpen your clinical judgement, and learn how to stay calm under pressure. If you have the passion and the willingness to keep learning, nursing can be an incredibly fulfilling career.

PULSE: How has nursing evolved over the years, and how do you foresee nursing leadership continuing to change?

Nursing has evolved significantly over the past 20 years. Patients today often have multiple conditions, requiring nurses to develop broader knowledge and more advanced clinical skills. At the same time, the role of nursing has expanded beyond bedside care into leadership, coordination, and innovation. With advancements in technology and Artificial Intelligence (AI), nurses must now also build digital competencies and adapt to new ways of working.

Leadership today is not just about managing; it is about guiding transformation, helping others adapt, and ensuring they feel supported along the way.

“Every patient deserves the highest standard of care, regardless of circumstance, while every nurse should feel valued and supported in their role. Nursing is ultimately about making a meaningful difference for both patients and the people we work with.”

References:

1. **Defibrillator** – A medical device that delivers an electric shock to the heart to restore a normal heartbeat during life-threatening arrhythmias.
2. **Next Generation Electronic Medical Record (NGEMR)** – An initiative by the Ministry of Health to put in place an advanced centralised medical record system for the Singapore population.
3. **Intensive Care Unit** – A dedicated section of a hospital where seriously or critically ill patients receive constant, close monitoring and advanced medical care.
4. **Infusion pump** – Medical device that automatically administers and delivers fluids or medications to patients, ensuring accurate and safe dosage.

ARTICLE BY

NUHCS PULSE Editorial

At the Heart of **CARDIAC SURGERY**

Adj A/Prof Vitaly Sorokin on
leading the Division of Adult
Cardiac Surgery at NUHCS

Cardiac surgery is a discipline that demands technical precision and the ability to remain calm under immense pressure.

For Adj A/Prof Vitaly A. Sorokin, cardiac surgery is more than just technical expertise. It is about taking responsibility - for patients whose lives are entrusted to him, for colleagues who depend on one another in the operating theatre, and for the next generation of surgeons who will carry the specialty forward.

Having recently taken on the role of Head of Division of Adult Cardiac Surgery under the Department of Cardiac, Thoracic and Vascular Surgery (CTVS) at the National University Heart Centre, Singapore (NUHCS), he is focused on strengthening the division while building on the foundations laid by Emeritus Prof Lee Chuen Neng, Emeritus Consultant, Division of Adult Cardiac Surgery, Department of CTVS, NUHCS, and Prof Theodoros Kofidis, former Head of Department of CTVS, NUHCS.

In this issue of PULSE, he shares the values that have shaped his career, the mindset required in one of medicine's most demanding specialties, and the vision guiding the division into the future.

PULSE: What were your first priorities when you took on this leadership role?

Adj A/Prof Vitaly: My primary goal was to bring the Division of Adult Cardiac Surgery to the next level, building on the strong foundations laid by those before us. We want to strengthen our division academically, train surgeons in contemporary surgical techniques, and continue providing world-class care for patients who need us most.

PULSE: How does leading a division differ from your previous role as a surgeon?

Adj A/Prof Vitaly: As a leader, you have to be selfless and responsible for others. It is no longer about your own results or wellbeing. It is about the team's performance, spirit and welfare. You must put the team first and treat them like family. Leadership also means being present and available whenever your team needs support.

PULSE: What are some key strengths or signature capabilities of the Division of Adult Cardiac Surgery today?

Adj A/Prof Vitaly: To lead a surgical unit, you must first be a good surgeon. One of our key strengths is our ability to manage complex cases and navigate critical situations in the operating theatre. Another equally important quality is understanding the unique demands and pressures that surgeons face throughout their careers and supporting them at every stage. Leadership also means leading by example, whether in the operating theatre, communication, academic development, or patient care.

PULSE: What first drew you to cardiac surgery – one of the most demanding fields in medicine?

Adj A/Prof Vitaly: I think many cardiac surgeons share a similar mindset. We are drawn to challenges, and learn to act decisively, even under significant mental and physical stress. Cardiac surgery is a specialty that constantly pushes you to grow, both professionally and personally.

PULSE: Cardiac surgery requires precision, endurance, and calm under pressure – how do you prepare yourself mentally and physically for complex cases?

Adj A/Prof Vitaly: Preparation begins long before entering the operating theatre. Silence, prayer, and meditation are some of the ways I stay focused and composed. Mental preparation also means having confidence in your clinical decisions, the preparation process, and your team's ability to perform the surgery safely. At the end of the day, you must know that you have done everything possible to give the patient the best chance of recovery.

PULSE: What is something patients might not know that happens behind the scenes in cardiac surgery?

Adj A/Prof Vitaly: Many patients may not realise that successful recovery depends on far more than the surgeon alone. Good results and successful recoveries are made possible by the collective efforts of the entire care team, from the operation theatre to the Intensive Care Unit (ICU) and general wards. Cardiac surgery is truly a team effort, and every member plays an important role in helping patients recover.

PULSE: After a long or emotionally demanding day, how do you decompress and recharge?

Adj A/Prof Vitaly: I recharge by spending time in nature. I often visit the Singapore Botanic Gardens, where I can reconnect with nature and restore my energy.

PULSE: What would surprise people about you?

Adj A/Prof Vitaly: I do not like eating carrots. With that said, carrots are good for health nonetheless. Please continue eating them if you enjoy.

PULSE: What keeps you motivated, even on the most challenging days?

Adj A/Prof Vitaly: Cardiac surgeons have the unique privilege of saving lives. Treating patients is a privilege, not only because we help individuals recover, but because we also support families, return loved ones to their children, and allow people to continue contributing to society. That responsibility is what keeps me motivated.

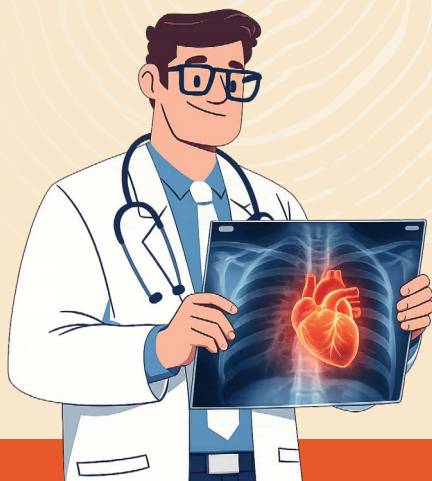
At the end of the day, you must know that you have done everything possible to give the patient the best chance of recovery.

**-Adj A/Prof Vitaly A. Sorokin,
Head, Division of Adult Cardiac Surgery,
Department of CTVS, NUHCS**



ARTICLE BY
NUHCS PULSE Editorial

LEARNING ABROAD, CARING AT HOME



How insights from a cardiac imaging fellowship are transforming patient care at NUHCS

The National University Heart Centre, Singapore (NUHCS) is committed to providing world-class cardiac care. A key part of this mission is fostering growth of our cardiologists by offering global exchange opportunities, also known as fellowships.

PULSE speaks to Dr Sia Ching Hui, Consultant, Department of Cardiology, NUHCS, who recently completed a fellowship in cardiac Magnetic Resonance Imaging (MRI)¹ at Leeds General Infirmary in the United Kingdom (UK). What began as an opportunity to deepen his expertise in advanced cardiac imaging became a journey that changed the way he thinks about patient care.

What is a Fellowship and why do public healthcare institutes offer this?

A fellowship is an advanced training programme designed for specialists to delve deeper into their area of expertise, allowing them to refine skills, master cutting-edge techniques, and gain the knowledge and confidence to manage the most complex cases within their specialty.

Many public healthcare institutes, like NUHCS, offer doctors with fellowship opportunities for patients to access top-tier care from highly skilled experts, and foster groundbreaking research with fresh ideas.

As a cardiologist, I have always been fascinated by what we can learn about the heart through imaging.

When I was given the opportunity to further develop my expertise, I expected to learn how to interpret more complex scans. What I did not expect was how the experience would reshape the way I think about patient care. It changed not only how I read the scanned images, but also how I understand the patient's journey and the decisions that follow. More importantly, it reminded me that behind every scan is a person waiting for answers, and every report we write has the potential to influence the course of someone's life.

The fellowship also offered me a close look at emerging imaging technologies. One example was 4D Flow MRI², which visualises blood movement through the heart in three dimensions over time. Rather than inferring how the blood flows, we can observe it directly as it moves through a narrowed valve or an abnormal vessel. For patients with valve disease³ or congenital heart conditions⁴, this provides valuable insights into why their condition may be worsening and when intervention is needed. Seeing it used routinely highlighted its potential for patients in Singapore. We are now taking steps to introduce this technology at NUHCS.



Together with
my mentors
Dr Sven Plein (left),
Dr Peter
P Swoboda (right)



and
Dr Malenka
Bissell
(right)

Did you know that a scan result can change someone's life?

It may determine whether a patient needs surgery, whether a young athlete can safely return to sport, or whether a family should be screened for an inherited condition. With this comes a responsibility to ensure every report is clear, accurate and meaningful.

Seeing What Matters

One of the most valuable lessons I learned was how to write better reports. Every scan I reviewed was discussed with a senior specialist, word by word. In the beginning, my reports were long and descriptive, recounting everything I saw. Over time, I was challenged to think differently: what is the one message the clinician needs? That shift changed everything. Reports became clearer, more concise, and more purposeful. I have since brought this mindset back to NUHCS, where we are working towards reports that help clinicians make decisions quickly rather than hunting for meaning.

Another important development was quantitative perfusion imaging⁵, which measures blood flow to the heart muscle. This goes beyond visual assessment and is particularly helpful for patients who experience chest pain despite having no obvious blockages in their arteries. Many of these patients have previously been told that their tests were normal, leaving them without answers. By identifying reduced blood flow in the small vessels, we can provide clearer explanations and guide treatments more effectively.



Coming together with the UK team to share knowledge and grow through the programme

Imaging with a Human Touch

What stood out most during the fellowship was not the technology, but the emphasis on patient experience. Children were scanned using breathing techniques that allowed them to breath normally, avoiding repeated breath-holding. They could watch cartoons during the scan, and parents were encouraged to stay close by. Adults lay in softly lit rooms and watched Netflix while their heart scans were being performed. Behind the scenes, radiographers carried out complex stress scans, while physicists worked alongside doctors to improve efficiency without compromising on image quality.

These details made a meaningful difference. Children required less sedation⁶. Adults felt calmer and were more cooperative. Scans were completed more efficiently, and image quality improved. It showed me that advanced technology and compassionate care can go hand-in-hand.

Bringing These Lessons Home

Back at NUHCS, my focus has been on adapting these lessons to our local setting. While our workflows and patient needs may differ from the UK, the principles remain relevant. We are working to:

✓
Streamline imaging protocols so patients spend less time in the scanner

✓
Introduce structured co-reporting so trainees learn through active participation

✓
Establish regular audit cycles to ensure consistent quality

✓
Prepare for the introduction of advanced techniques such as 4D Flow and quantitative perfusion

For patients, these improvements may seem small: a shorter scan, a clearer report, fewer repeat tests, or a better explanation of their condition. Yet, these small changes matter, especially for someone waiting for answers. A child with heart disease may avoid anaesthesia. A patient with unexplained chest pain may finally understand the cause. A family with an inherited heart condition may receive clearer guidance about the future.

The fellowship has changed how I see my role. I returned not only with new skills, but with a deeper sense of responsibility.

- Dr Sia Ching Hui, Consultant, Dept. of Cardiology, NUHCS



Enjoying a cozy meal with my colleagues

Advanced imaging is only valuable if it is shared, taught and integrated into a system that serves patients well. By working with colleagues, training the next generation, and maintaining strong international partnerships, I hope to contribute to a cardiac imaging service at NUHCS that is both technically excellent and genuinely patient-centered.

References:

1. **Magnetic Resonance Imaging (MRI)** – a non-invasive, radiation-free medical imaging technique that uses a powerful magnetic field and radio waves to generate 3D images of body tissues, organs, and bones. It is often used for disease detection, diagnosis, and treatment monitoring.
2. **4D Flow MRI** – a non-invasive procedure that uses MRI technology to visualise and measure blood flow patterns in three dimensions over time, aiding in the diagnosis and treatment of various cardiovascular conditions.
3. **Valve disease** – a condition where one or more of the heart's four valves fail to function properly, disrupting blood flow. This can lead to heart failure, stroke, or death.
4. **Congenital heart conditions** – structural or functional abnormalities of the heart present at birth, which may affect the flow of blood and oxygen throughout the body.
5. **Quantitative perfusion imaging** – a technique that measures blood flow to the heart muscle. Unlike traditional scans that mainly compare different areas of the heart, it provides precise measurements of blood flow, helping doctors detect problems in the heart's smaller blood vessels.
6. **Sedation** – the use of medication to help a patient relax or feel sleepy during a medical procedure, reducing anxiety or discomfort.



ARTICLE BY

Dr Sia Ching Hui
Consultant, Department of Cardiology, NUHCS

Dr Sia has a keen clinical and research interest involving multi-modality cardiac imaging to investigate mechanisms of disease, diagnose, prognosticate, and guide management of patients, as well as a special interest in cardioneurology and cardiomyopathies. As an avid researcher, he has published more than 340 papers in peer-reviewed journals. He is an Adjunct Assistant Professor at the Department of Medicine, Yong Loo Lin School of Medicine, National University of Singapore.

SINGAPORE HEALTH QUALITY SERVICE AWARDS 2026

Honouring THE HEART OF HEALTHCARE

The Singapore Health Quality Service Awards (SHQSA) was established in 2011 as Singapore's first dedicated platform aimed at honouring outstanding healthcare professionals from across the healthcare sector, who have delivered quality care and excellent patient experience.

Held on 16 January 2026, this year's ceremony was graced by Guest-of-Honour, Mr Ong Ye Kung, Minister for Health and Coordinating Minister for Social Policies, with a total of over 5,100 awards presented to individuals from 49 healthcare institutions and organisations.

This year, NUHCS celebrated the achievements of 11 exemplary team members who were honoured with Gold and Silver Awards for their steadfast service and dedication to patient care:

GOLD AWARD



Adj A/Prof Chai Ping

Senior Consultant,
Department of Cardiology, NUHCS



Ms Chin Chew Hoon

Patient Service Associate
Executive, NUHCS



Ms Conny Lim Pui

Service Team Leader,
NUHCS



Ms Joyce Tee Pei Wei

Patient Service Associate
Executive, NUHCS

The four Gold Award recipients were also previous recipients of the Silver Awards in 2025, reflecting their tireless commitment to continually raising the standards of patient care.

SILVER AWARD

Ms Christine Liew Choi Yi

Medical Technologist, NUHCS

Ms Fu Xuefang

Assistant Nurse Clinician, NUHCS

Ms Ho Lee Kien Winnie

Senior Medical Technologist, NUHCS

Ms Jacqueline Soh Pei Fern

Patient Service Associate Executive,
NUHCS

Ms Rainah Teo Boon Kheng

Patient Service Associate Executive,
NUHCS

Ms Shermaine Fun Yoke Chang

Senior Principal Medical Technologist,
NUHCS

Ms Tan Li Beng

Principal Enrolled Nurse, NUHCS

As NUHCS celebrates the achievements of its award recipients, it also honours the professionalism, compassion and heart they bring to every patient interaction. Their dedication to delivering exceptional care reflects NUHCS' collective effort to improve the experiences and outcomes of its patients, and inspires others to continue striving for excellence in all that they do.

ARTICLE BY

NUHCS PULSE Editorial

Congratulations

Doctors' Promotions at NUHCS

With effect from Jan 2026



Dr Gavin Ng
Senior Consultant,
Department of Cardiology,
NUHCS @ National University Hospital (NUH)



Dr Senthil Kumar Subbian
Senior Consultant, Division of Paediatric Cardiac Surgery,
Department of Cardiac, Thoracic and Vascular Surgery
(CTVS), NUHCS @ NUH



Dr Winn Maung Maung Aye
Senior Consultant, Division of Paediatric Cardiac
Surgery, Department of CTVS,
NUHCS @ NUH



Dr Alfred Yip
Consultant,
Department of Cardiology,
NUHCS @ NUH



Dr Zan Ng Zhe Yan
Consultant,
Department of Cardiology,
NUHCS @ NUH



Dr Ryan Leow
Associate Consultant,
Department of Cardiology,
NUHCS @ NUH



Dr Zhao Yang
Associate Consultant,
Division of Cardiology, Department of Medicine,
NUHCS @ Ng Teng Fong General Hospital

PUBLICATIONS

A consensus of international experts on definition, sampling, treatment, and prevention of peripheral extracorporeal membrane oxygenation cannula-site infection obtained by the Delphi method: the SAVECMO study. *Intensive Care Med.*

2026 Jan 8. Masi P, Abrams D, Hssain AA, Ba lik M, Barrett NA, Broman LM, Camporota L, Chen YS, Combes A, De Backer D, Del Sorbo L, Diaz R, Donker DW, Douflé G, Fan E, Fraser JF, Giani M, Giraud R, Grasselli G, Hraiech S, Lorusso R, **MacLaren G**, Marcus JE, Martucci G, Mendes PV, Ohshimo S, Paiva JA, Park S, **Ramanathan K**, Riera J, Roncon-Albuquerque R Jr, Salazar L, Schmidt M, Shah A, Shekar K, Supady A, Taccone FS, Tonna JE, Yeung Ng P, Yusuff H, Luyt CE; For EuroELSO.

Addressing Frailty in Cardiology: Identifying Barriers Faced by Cardiologists and Health Care Professionals in Asia. *JACC Asia.* 2025 Sep 1:S2772-3747(25)00373-4. Wong JJ, Hong R, Ong TIW, Lim JY, Yan T, Park DW, Tan GHN, Zhang H, Nguyen TTH, Nguyen HTT, Dong Y, **Kong WKF**, Li S, Tan JWC, Vu HTT, Koh AS.

Arterial Tissue Gene Expression Associated with Telomere Length Attrition in Coronary Artery Disease. *J Lipid Atheroscler.* 2026 Jan;15(1):e5. Lau ZC, Naaz A, Muniasamy U, **Lim XY**, Gurung RL, Oguz G, Ramasamy A, Koh WP, **Sorokin V**, Dorajoo R.

Associations Between Right Ventricular Remodeling, Exercise and Circulating Metabolites in Volume and Pressure Overload States. *JACC Asia.* 2025 Oct 27:S2772-3747(25)00537-X. Zhao X, Leng S, Tan RS, Gao F, Teo L, **Chai P**, Wee HN, Chua KV, Ching J, Han S, Lee PT, **Yip JWL**, Tan JL, Kovalik JP, Koh AS, Zhong L.

Bleeding Outcomes of Ticagrelor Versus Clopidogrel in Acute Coronary Syndrome Patients: A Multiethnic Database Study. *JACC Asia.* 2025 Nov;5(11):1428-1438. Loh GL, Chong KJ, Ganesan G, **Chan MY**, Tan JWC, Chin CT, Ho HH, Imran SS, **Tan DS**.

Cardiac Rehabilitation in Patients with Coronary Heart Disease - Provision, Attendance, and Outcomes: Results from the INTERASPIRE Survey from Fourteen Countries Across Six WHO Regions. *Glob Heart.* 2025 Sep 2;20(1):75. Kotseva K, De Bacquer D, Jennings C, McEvoy JW, Ryden L, Ray KK, Lip GYH, Erlund I, Ganly S, Vihervaara T, Adamska A, Abreu A, Almahmeed W, Ambari AM, Connolly S, Ge J, Gibson I, Hasan-Ali H, Hennessy S, Huo Y, Jankowski P, Jimenez RM, Jones J, Li Y, Zuhdi ASM, Makubi A, Mbakwem AC, Mbau L, Estrada JLN, Ogah OS, Ogola EN, Quintero-Baiz A, Sani MU, Liprandi MIS, Tan JWC, Thompson DR, Triana MAU, **Yeo TJ**, Wood D, De Backer GG; INTERASPIRE Investigators.

Cerebral Small-Vessel Disease Markers on Magnetic Resonance Imaging as Predictors of Recurrent Vascular Events and Death in Ischemic Stroke: A Systematic Review and Meta-Analysis. *J Am Heart Assoc.* 2025 Sep 2;14(17):e040082. Hairus S MN, Srinivasan A, Shaik Mohideen SA, MacAlevey NCYL, **Chan MY**, Leow AST, Zhou X, Lip GYH, Tan BYQ, Yeo LLL, Teo YN, Teo YH, **Sia CH**.

Clinical Characteristics, Hemodynamic Profile, and Outcomes in Patients With Low-Gradient and High-Gradient Severe Mitral Stenosis: Influence of Flow Status. *J Am Heart Assoc.* 2025 Oct 21;14(20):e041884. **Leow R**,

Chan MW, **Li TYW**, **Kong WKF**, **Poh KK**, **Kuntjoro I**, **Sia CH**, **Yeo TC**.

Clinical Characteristics, Management and Outcomes of Enterococcal Infective Endocarditis: An Ancillary Study from the ESC-EORP EURO-ENDO Registry. *Eur Heart J Qual Care Clin Outcomes.* 2025 Nov 27:qcaf145. [Epub ahead of print]. Philip M, Dumonceau RG, Citro R, Cosyns B, Donal E, Erba PA, Gouriet F, lung B, **Kong WKF**, Lancellotti P, Maggioni A, Mancini J, Popescu BA, Prendergast B, Sambola A, Sengupta SP, Timoteo A, Tribouilloy C, Van Melle J, Giorgi R, Habib G; **EURO-ENDO Investigators**.

Clinical Characteristics and Outcomes of a Cohort of Multiethnic Asian Patients with Cardiac Myxoma. *Sci Rep.* 2025 Oct 22;15(1):36889. Shua IYL, Tongboriboon P, Sim F, **Li TYW**, **Poh KK**, **Kong WKF**, **Chan MY**, **Chai P**, **Yeo TC**, **Yeo LL**, **Tan BY**, **Wong HJ**, **Teo YH**, **Sia CH**.

Clinical outcomes following invasive cardiovascular interventions in frail populations: a systematic review and meta-analysis. *Eur Heart J Qual Care Clin Outcomes.* 2025 Sep 12:qcaf109. Jiang H, Wong JJ, Li LJ, Gao F, Wykrzykowska JJ, Ho KW, Takahashi S, Lee KS, **Kong WKF**, **Poh KK**, **Tan RS**, **Koh AS**.

Clinical predictors and prognostic impact of left ventricular thrombus recurrence. *Heart.* 2025 Sep 8:heartjnl-2025-326486. doi: 10.1136/heartjnl-2025-326486. [Epub ahead of print]. **Leow AST**, **Low CJ**, **Goh FQ**, **Seah AW**, **Tan BY**, **Kong WKF**, **Poh KK**, **Chan MY**, **Yeo LLL**, **Chai P**, **Yeo TC**, **Zhou X**, **Lip GYH**, **Sia CH**.

Conversion From Venovenous to Venoarterial or Hybrid Extracorporeal

Membrane Oxygenation: Analysis From the Extracorporeal Life Support Organization Registry. *Crit Care Med.* 2026 Jan 20. De Piero ME, Alessandri F, Mariani S, Di Mauro M, Alunni Fegatelli D, Pugliese F, Ravoux JM, Brodie D, Abrams D, Broman LM, Mueller T, Taccone FS, Belliato M, Dos Reis Miranda D, Swol J, Malfertheiner MV, Gnowalewski M, Peek GJ, Hou X, Fraser JF, **MacLaren G**, Tonna JE, Di Nardo M, Lorusso R.

Deep learning-based quantification of epicardial adipose tissue volume from non-contrast computed tomography images: a multi-centre study. *Eur Heart J Digit Health.* 2025 Oct 13;6(6):1223-1233. Leng S, Cheng N, Tan E, Baskaran L, Teo L, Yew MS, Ngiam KY, Huang W, **Chai P**, Ong CC, **Sia CH**, Singh M, Loong YT, Raffiee NAS, Wang X, Allen J, Tan SY, **Chan MY**, Lee HK, Zhong L.

Defining Procedural MI After Cardiac Surgery Using High-sensitivity Cardiac Troponin: A Systematic Review. *Journal of Asian Pacific Society of Cardiology.* 2025 Dec 23;4:e47. Zhu C, Wang X, Li X, Sin K, Pang P, **Sorokin V**, Lau C, Liehn E, Liu K, Hausenloy DJ.

Digital Twin Model Predicts Prognosis in Pulmonary Arterial Hypertension. *JACC Cardiovasc Imaging.* 2025 Dec 11:S1936-878X(25)00652-7. Leng S, Guo J, Alabed S, Tan RS, **Chai P**, Teo L, Zhao X, Young A, Wild JM, Allen JC, Zong D, Tan JL, **Yip JWL**, Swift AJ, Chen Y, Kiely DG, Zhong L.

EACTS Expert Consensus Document on protected cardiac surgery: pre-emptive use of temporary mechanical circulatory support in adult cardiac surgery patients at high risk for perioperative low cardiac output syndrome. *Eur J Cardiothorac Surg.*

2025 Oct 9;ezaf296. Lorusso R, Salazar L, Nersesian G, Milojevic M, Schmack B, Engelman DT, Stein L, Silvestry S, Zimpfer D, Wiedemann D, Goldstein D, Soltesz E, Bermudez C, Haft J, Patel B, Moreno P, **MacLaren G**, Tonna J, Takayama H, Lamarche Y, Rao V, Faerber G, Meyns B, Takeda K, Boeken U, Arora RC, Whitman G, Potapov E; EACTS Scientific Document Group.

Editorial commentary: Unanswered questions for an age-old problem: Rethinking left ventricular thrombus management. Trends Cardiovasc Med. 2025 Oct 7;S1050-1738(25)00134-3. **Leow AST, Sia CH.**

Enablers and barriers to perform upper extremity exercise among patients with newly created arteriovenous fistula for hemodialysis: a qualitative study. BMC Nephrol. 2025 Oct 29;26(1):603. Meng L, Guo W, **Ho P.**

Extracorporeal cardiopulmonary resuscitation following cardiac surgery: a scoping review. Resusc Plus. 2025 Dec 30;27:101210. Takemoto S, Shimoda TM, Inoue Y, Kanazawa H, Sanatkar A, Osho A, Ling RR, **Ramanathan K**, Shiose A, Okada Y.

Extracorporeal membrane oxygenation support for tropical infections: a scoping review. J Intensive Care. 2026 Jan 2;14(1):11. Jarrett ZS, Marcus JE, Salazar L, **Ramanathan K**, Thomson DA, **MacLaren G.**

Frailty and outcomes after extracorporeal membrane oxygenation: a binational registry-based cohort study. Crit Care. 2025 Dec 27;30(1):49. Ling RR, Subramaniam A, Pilcher D, **Ramanathan K**, Sundarajan K, Shekar K.

Gender Disparity in Extracorporeal Cardiopulmonary Resuscitation for Out-of-Hospital Cardiac Arrest. Crit Care Med. 2026 Jan 13. Kawauchi A, Okada Y, Aoki M, Matsuyama T, Ling RR, **Ramanathan K**, Nagayama J, Nakamura M.

Generalized Edema in a 10-Year-Old Child. Pediatr Rev. 2025 Oct 1;46(10):566-572. Sinnathamby A, Chen CK, **Kiraly L**, Ramachandran R.

Global detection and management of dysglycaemic patients with coronary artery disease results from the INTERASPIRE survey from 14 countries across six WHO regions. Cardiovasc Diabetol. 2025 Aug 11;24(1):327. Al-Azzawy SM, McEvoy JW, Johansson I, Adamska A, De Backer G, Erlund I, Ganly S, Jennings C, Kotseva K, Lip GYH, Mellbin L, Ray KK, Vihervaara T, Wood D, Abreu A, Almahmeed W, Ambari AM, Ge J, Hasan-Ali H, Huo Y, Jankowski P, Jimenez RM, Li Y, Zuhdi SM, Makubi A, Mbakwem AC, Mbau L, Estrada JLN, Ogah OS, Ogola EN, Quintero-Baiz A, Sani MU, Liprandi MIS, Tan JWC, Triana MAU, **Yeo TJ**, De Bacquer D, Rydén L.

Global Trends and Forecast of Cardiovascular Diseases, Cancer, and Shared Risk Factors: Insights From the GBD 2021. J Am Heart Assoc. 2025 Nov 4;14(21):e043629. **Koo CY**, Chong B, Jayabaskaran J, Nagarajan S, Jauhari SM, Chen Y, **Tan LL**, Mehta A, Khan MS, Muthiah M, Hausenloy D, Richards AM, Ko DT, Mallen CD, Secemsky EA, **Chan MY**, Thavendiranathan P, **Chew NWS**, Mamas MA.

Glucagon-like peptide-1 receptor agonist in myocardial infarction and atherosclerotic cardiovascular disease risk reduction: a comprehensive meta-analysis of number

needed to treat, efficacy and safety. Cardiovasc Diabetol. 2025 Jul 12;24(1):285. Tang ASP, Hsu JTY, Chong SKS, Quek J, Shek G, Sulaimi F, Chan KE, Anand VV, Chong B, Mehta A, Toh SA, Muthiah M, Dimitriadis GK, le Roux CW, **Chan MY**, Mamas MA, Chin YH, **Chew NWS.**

Health Status Outcomes With Percutaneous Coronary Intervention and Coronary Artery Bypass Grafting in ISCHEMIA. Circulation. 2025 Sep 23;152(12):846-858. Huded CP, Spertus JA, Jones PG, O'Brien SM, Mark DB, Bangalore S, Stone GW, Williams DO, White HD, Boden WE, Reynolds HR, Hochman JS, Maron DJ; **ISCHEMIA Research Group*.**

Inpatient-Onset Versus Outpatient-Onset ST-Segment-Elevation Myocardial Infarction in Patients With Percutaneous Coronary Intervention: A National Registry Study. J Am Heart Assoc. 2025 Oct 7;14(19):e038727. Wong HJ, Low CE, Yau CE, Yeo BSY, Teo YH, Teo YN, **Chai P**, **Loh PH**, **Yip JWL**, Ho AF, Foo D, Chia PL, Lim PZ, Yeo KK, Chow W, Chong DTT, Hausenloy DJ, **Chan MY**, **Sia CH.**

International patterns in lipid management and implications for patients with coronary heart disease: results from the INTERASPIRE study. Eur J Prev Cardiol. 2025 Aug 12;zwaf388. [Epub ahead of print]. Brandts J, Barkas F, De Bacquer D, Jennings C, De Backer GG, Kotseva K, Ryden L, Lip GYH, Erlund I, Ganly S, Vihervaara T, Adamska A, Abreu A, Almahmeed W, Ambari AM, Ge J, Hasan-Ali H, Huo Y, Jankowski P, Jimenez RM, Li Y, Zuhdi ASM, Makubi A, Mbakwem AC, Mbau L, Estrada JLN, Ogah OS, Ogola EN, Quintero-Baiz A, Sani MU, Liprandi MIS, Tan JWC,

Triana MAU, **Yeo TJ**, Wood D, McEvoy JW, Ray KK.

Interpreting the ECG in Asian athletes: time for more scrutiny? Br J Sports Med. 2025 Sep 16;bjsports-2024-10861. Tan AKV, **Yeo TJ.**

Introduction to the ninth edition TNM staging of non-small cell lung cancer: A surgical perspective. Asian Cardiovasc Thorac Ann. 2026 Feb 9;2184923261418810. **Chen J.**

Macrophage-like vascular smooth muscle cells dominate early atherosclerosis and are inhibited by targeting iron regulation. bioRxiv. 2025 May 25;2025.05.22.655434. Gurung R, Lee CJM, Liehn EA, Nurjanah S, Minqin R, Van Kan JA, Villanueva E, Amrute JM, Loong S, Ackers-Johnson M, Ruberto F, Ng SL, Loo YX, Chu J, **Lin XY**, Karampinos KI, Kofidis T, Lavine KJ, Singaraja RR, **Sorokin V**, **Foo R.**

Mitigating the adverse haematological consequences of extracorporeal membrane oxygenation. Perfusion. 2025 Oct;40(7):1533-1534. **MacLaren G.**

Nocturnal Hypoxemia Is Associated with Lower Cardiovascular Events in Patients with Acute Coronary Syndrome and OSA. Chest. 2025 Dec 30;S0012-3692(25)05959-8. [Epub ahead of print]. Zheng W, Wang X, Li SY, Fan JY, Ai H, Zhang JJ, Drager LF, Sethi R, Zhao D, **Lee CH**, Nie SP.

Outcomes in Patients Requiring VENO-Venous Extracorporeal Membrane Oxygenation After Cardiac Surgery: An Analysis From the PELS-1 Study. Artif Organs. 2026 Jan 11. [Epub ahead of print]. Nardelli P, Mariani S, De Piero ME, van Bussel BCT, Di Mauro M, Schaefer AK, Saeed D,

Pozzi M, Botta L, Boeken U, Samalavicius R, Bounader K, Hou X, Bunge JH, Buscher H, Salazar L, Meyns B, Mazzeffi MA, Sacha Matteucci ML, Sponga S, **Ramanathan K**, Russo C, Formica F, Sakiyalak P, Fiore A, Camboni D, Raffa GM, Diaz R, Wang IW, Jung JS, Belohlavek J, Pellegrino V, Bianchi G, Pettinari M, Barbone A, Garcia JP, Shekar K, Whitman G, Lorusso R; **PELS Investigators***.

Pathological Q waves at presentation of anterior ST segment elevation myocardial infarction predict heart failure: a Southeast Asian perspective. Coron Artery Dis. 2025 Aug 1;36(5):378-383. **Houdmont M, Lim EH, Djohan Hartanto A, Lau V, Chan SP, Win SK, Tung B, Ng ZY, Chan MY, Lee CH, Low AF, Tan HC, Yeo TC, Loh PH, Chan KH.**

Population-Based Study on the Coexistence of Metabolic Dysfunction-Associated Steatotic Liver Disease and Chronic Kidney Disease. J Am Heart Assoc. 2025 Sep 19:e041834. Goh RSJ, Koh J, Utami Intaran MA, Chin Y, Kong G, Chong B, Chia J, **Chan MY**, Mehta A, Muthiah M, Khan MS, **Chew NWS.**

Post-Cardiotomy Extracorporeal Life Support Following Aortic Surgery. ASAIO J. 2025 Dec 17. [Epub ahead of print]. Bari G, Mariani S, van Bussel BCT, Di Mauro M, Conci L, Saeed D, Pozzi M, Loforte A, Boeken U, Samalavicius R, Bounader K, Hou X, J H Bunge J, Buscher H, Salazar L, Meyns B, Mazzeffi M, Matteucci S, Sponga S, **Sorokin V**, Russo C, Formica F, Sakiyalak P, Fiore A, Camboni D, Maria Raffa G, Diaz R, Wang IW, Jung JS, Belohlavek J, Pellegrino V, Bianchi G, Pettinari M, Barbone A, P Garcia J, Shekar K, Whitman G, Lorusso R; **on behalf of the PELS Investigators***.

Predictive Models for Mortality in Cardiogenic Shock: A Systematic Review and Meta-Analysis. Crit Care Med. 2026 Jan 1;54(1):142-153. Ng GWY, Low CJW, Ng KJ, Ling RR, **Chan SP**, Anbalakan K, Jung C, **Lin W**, Pilcher D, Shekar K, **Ramanathan K, Lim SL.**

Prevalence of Obstructive Sleep Apnea and Adherence to CPAP for TAXI Drivers. Clocks Sleep. 2026 Jan 7;8(1):4. Chan YH, Kosasih AM, Kok V, Ou YH, Chng YJC, Gooley JJ, **Lee CH.**

Reply. J Vasc Surg. 2026 Mar;83(3):969. Meng L, **Ho P.**

Risk of new-onset heart failure and heart failure exacerbations following COVID-19, influenza or respiratory-syncytial-virus hospitalisation. Eur J Prev Cardiol. 2025 Nov 6:zwaf714. [Epub ahead of print]. Wee LE, Loy EX, Ngiam N, Lim JT, Chiew CJ, Li RJ, Chia YW, **Lim SL**, Yap J, **Wong RCC**, Yeo KK, Hausenloy DJ, **Chan MY**, Lye DCB, Tan KB.

Saving Blood: At All Times, at All Costs? ASAIO J. 2026 Jan 1;72(1):e19. Antonini MV, Peek GJ, **MacLaren G.**

Simulation-Based Education for Extracorporeal Membrane Oxygenation and Strategies for Implementation: A Systematic Scoping Review. Simul Healthc. 2026 Feb 1;21(1):57-74. Ling RR, Milas A, Wang JK, **Ramanathan K**, Alinier G, Johnston LC, Antonini MV, Lai PCK, Moore EA, Diaz R, Mateo-Sidron JAR, Badulak J, Ogino MT, Shekar K, Zakhary B; Extracorporeal Life Support Organization ELSOEd Taskforce.

Singapore's experience on the VasQ™ anastomotic external support device to augment arteriovenous fistula maturation: Real world outcomes.

J Vasc Access. 2025 Oct 3:11297298251377946. [Epub ahead of print]. Lim X, Zhang L, Pan Y, Hong Q, Mak M, Chong LRC, Neo S, Tan GWL, **Dharmaraj RB, Ng JJ**, Chong SW, **Ho P**, Yong E.

Tackling cardiovascular disease in the Asia-Pacific region: a new Lancet Commission. Lancet. 2025 Sep 6;406(10507):988-989. Lam CSP, Cader FA, **Chew NWS**, Chow CK, Grey C, Guo Y, Nelson AJ, Rolleston A, Sawano M, Tan KCB, Tromp J, Yan LL, Nicholls SJ.

Temporary Mechanical Circulatory Support and Shock Teams in High-Risk Cardiac Surgery: The Strategic Evolution of Protected Cardiac Surgery. Ann Thorac Surg. 2026 Jan 14:S0003-4975(26)00011-1. [Epub ahead of print]. Salazar L, Nersesian G, Meani P, Bari G, Mariani S, Potapov E, Di Mauro M, Gelsomino S, Milojevic M, Schmack B, Stein L, Zimpfer D, Wiedemann D, Soltetz E, Bermudez C, Haft J, Moreno P, Tonna J, Takayama H, Lamarche Y, Rao V, Faerber G, Meyns B, Takeda K, Boeken U, **MacLaren G**, Whitman G, Patel B, Silvestry S, Goldstein DJ, Arora RC, Engelman DT, Lorusso R.

The Asia Pacific Cardiovascular Research (ASPIRE) Network: Facilitating and Advancing Regional Cardiovascular Clinical Trials. JACC Asia. 2025 Jul 29:S2772-3747(25)00327-8. Lau C, Adamson PD, **Chew NWS**, Figtree G, Fong A, Foo DH, Gan GCH, Al Mahmeed W, Hsu CY, Huang CY, Jeong YH, Kajiya T, Karthikesan D, Kim Y, Krittayaphong R, **Lee CH**, Lin JL, Nauli SE, Nomura S, Park DW, Suciadi LP, Phrommintikul A, Richards AM, Irawan Bin Ruhani A, Shih CC, Sinphurmsukskul S, Siswanto BB, Sukmawati I, Tan SH, Thanabalan A, Troughton R, Tsujita K, Wang

WT, Widyantoro B, Wong C, Yasuda S, Yau H, Yiu KH, Yusof A, **Chan MY**, Hausenloy DJ. The Asia Pacific Cardiovascular Research (ASPIRE) Network: Facilitating and Advancing Regional Cardiovascular Clinical Trials.

The Association Between Frailty, Pa o2 /F io2 Ratio, and Hospital Mortality: A Retrospective Registry-Based Cohort Study. Crit Care Med. 2025 Dec 1;53(12):e2663-e2673. Subramaniam A, Ling RR, Burrell A, Moran B, Ramanan M, **Ramanathan K**, Reddy MP, Pilcher D, Shekar K.

The Contemporary Role of Cardiovascular Magnetic Resonance in Ischemic Cardiomyopathy. J Clin Med. 2025 Oct 22;14(21):7479. Widyawati DG, Teo LLS, Ong CC, **Houdmont M, Chai P, Sia CH.**

The Global Syndemic of Modifiable Cardiovascular Risk Factors Projected From 2025 to 2050. J Am Coll Cardiol. 2025 Jul 22;86(3):165-177. Chong B, Jayabaskaran J, Jauhari SM, Chia J, le Roux CW, Mehta A, Dimitriadis GK, Chen Y, Toh SA, Manla Y, Al Mahmeed W, **Chan SP**, Goh R, Nagarajan S, Li H, Kong G, Chin YH, Wang JW, Chew HSJ, Kontopantelis E, Muthiah M, Tan JWC, Hausenloy D, Figtree GA, Mamas MA, Richards AM, Nicholls SJ, **Chan MY**, Lip GYH, Roth G, Mensah GA, Sperling LS, **Chew NWS.**

The impact of minimally invasive dialysis access. J Vasc Access. 2025 Sep 9:11297298251371764. [Epub ahead of print]. Liew NC, Chew S, **Ho P**, Swinnen J, Shahverdyan R, Thomas SD.

Ultrasound in Extracorporeal Membrane Oxygenation: An ELSO State-of-the-Art Review. ASAIO J. 2026 Feb 1;72(2):85-98. Douflé G, O'Neil ER, Abreu

S, Aljassim NA, Di Nardo M, Obonyo NG, Pinzon V, Price S, Ramanathan K, Balik M.

When pharyngitis turns septic: A modern case of Lemierre's Syndrome. Am J Med. Am J Med. 2026 Mar;139(3):309-310. Goh WG, Fong CY, **Ooi OC**, Lee P.

World Heart Day 2025: Don't Miss a Beat - bridging gaps in cardiovascular health for women, children and the future. Singapore Med J. 2025 Sep 1;66(9):492-494. **Zhang AA, Sia CH, Poh KK.**

ABSTRACTS

American College of Cardiology 2025, Chicago, USA, 29-31 March 2025

Clinical Characteristics and Longitudinal Outcomes of a 10-year Asian Transcatheter Aortic Valve Implantation Registry. **Ong J**, Ramero V, **Soh RYH**, **Chew NWS**, **Leow AST**, **Zhang A**, **Low TT**, **Yip JWL**, Hon J, Tay E, **Kuntjoro I**, **Lim YH.**

Longitudinal Characteristics and Outcomes of Normal-Flow Low-Gradient Aortic Stenosis in Asian Patients. **Ong J**, **Yeung W**, **Leow AST**, **Kong WKF**, **Yeo TC**, **Sia CH**, **Poh KK.**

Asian Pacific Society of Cardiology (APSC) 2025, Busan, Korea, 17-19 April 2025

Sex Disparities in Outcomes in Patients with ST-segment Elevation Myocardial Infarction (STEMI): A Global Meta-Analysis. **Ong JSY**, Ong X, Lee F, Koh LP, Cheo HM, Lee A, Wee IJY, **Sia CH.**

The Participation of Women in Cardiovascular Clinical Trials in ASEAN From 2010 to 2025. **Ong JSY**, Wee IJY, Cheo HM, Lee A, Ong X, Lee F, Koh LP, **Sia CH**, **Tyebally SM**, **Low TT.**

The 9th International Congress on Cardiac Problems in Pregnancy (CPP) 2025, Vienna, Austria, 24-27 April 2025

Pregnancy outcomes in women with cardiovascular disease (CVD): The Pregnancy and Cardiac Disease Registry in Singapore (PACRIS). **Ong JSY**, Wee I, **Tioh C**, **Ong J**, **Yip JWL**, **Lim YC**, **Wang L**, Chan WX, Tan JL, Yan L, Su LL, Biswas A, Choolani M, Tan LK, **Low TT.**

93rd European Atherosclerosis Society (EAS) Congress 2025, Glasgow, Scotland, 4-7 May 2025

Differential gene expression analysis highlights distinct coronary artery disease pathogenesis pathways related to telomere length attrition in arterial wall tissues and granulocytes. Lau ZC, Naaz A, Muniasamy U, **Lin XY**, Gurung RL, Lim SC, Ramasamy A, Oguz G, Koh WP, **Sorokin V**, Dorajoo R.

Heart Failure 2025, the congress of the ESC Heart Failure Association (HFA), Belgrade, Serbia, 17-20 May 2025

Clinical and Safety Outcomes of a Pharmacist-led Medication Therapy Management Clinic for Heart Failure Patients in a Tertiary Hospital in Singapore. **Lin W**, Tan SJ, Soh PX, Wong P, **Chai P**, **Wong RCC**, **Ambhore A**, **Lim YC**, **Cherian R**, Yong ML, **Low PC**, Ong CY, Kong ST, **Saw YS.**

Clinical Characteristics, Mortality Outcomes and Survival Predictors of Transthyretin Cardiac Amyloidosis in an Asian Registry. **Ong J**, **Li TYW**, Tan E, Putri V, Tulod F, **Lim YC**, **Cherian R**, **Chai P**, **Sia CH**, **Wong RCC**, **Lin W.**

Comparing Diagnostic Modalities and Time to Diagnosis in Transthyretin Amyloidosis: Insights from a

Multi-ethnic Asian Registry. Putri VKP, **Ong J**, Tan E, **Li TYW**, **Foo R**, Ng P, **Chai P**, **Sia CH**, **Wong RCC**, **Lim YC**, **Lin W.**

Comparison of Inferior Vena Cava Wall Thickness in Patients with Cardiac Amyloidosis Versus Hypertrophic Cardiomyopathy: A New Diagnostic Tool. **Li TYW**, Sari NY, **Yeo TC**, **Yip JWL**, **Poh KK**, **Kong WKF**, **Chai P**, **Lim YC**, Ng P, **Lin W**, **Wong RCC**, **Sia CH.**

Echocardiographic Indices of Right Ventricular Function to Predict Cardiovascular Outcomes in Asian Patients with Cardiac Amyloidosis. Sari NY, **Li TYW**, **Leow AST**, **Yeo TC**, **Poh KK**, **Kong WKF**, **Chai P**, **Lim YC**, **Wong RCC**, **Sia CH**, **Lin W.**

Left Ventricular Global Deformation Index: Evaluating a Novel Echocardiographic Marker for Prediction of Heart Failure in Asian Patients with Hypertrophic Cardiomyopathy. **Li TYW**, **Wong RCC**, Sari NY, Chung BK, Seah A, **Lim YC**, **Ng P**, **Yip JWL**, **Poh KK**, **Kong WKF**, **Lin W**, **Sia CH**, **Yeo TC.**

Prognostic Value of Left Atrial Strain in Patients with Transthyretin Amyloid Cardiomyopathy. **Tan E**, **Ong J**, Putri VKP, **Li TYW**, **Lim YC**, **Ng P**, **Kong WKF**, **Poh KK**, **Yeo TC**, **Foo R**, **Sia CH**, **Chai P**, **Wong RCC**, **Lin W.**

Prognostic Value of Right Ventricular Longitudinal Strain in Patients with Transthyretin Amyloid Cardiomyopathy. **Tan E**, **Ong J**, Putri VKP, **Li TYW**, **Lim YC**, **Ng P**, **Kong WKF**, **Poh KK**, **Yeo TC**, **Foo R**, **Sia CH**, **Chai P**, **Wong RCC**, **Lin W.**

ESC Congress in Madrid, Spain, 29 August – 1 September 2025

Clinical characteristics and outcomes of aortic stenosis patients with and without standard modifiable cardiovascular risk factors. **Leow AST**, **Ong JSY**, **Thong**

EHE, **Kong WKF**, **Yeo TC**, **Sia CH**, **Poh KK.**

Evaluating the Impact of Left Ventricular End-Systolic Elastance on Aortic Stenosis. **Ong JSY**, **Leow AST**, **Thong EHE**, **Kong WKF**, **Yeo TC**, **Sia CH**, **Poh KK.**

The European Association of Cardiovascular Imaging (EACVI), Vienna, Austria, 11-13 December 2025

Prognostic value of Left atrial strain in patients with chronic moderate-to-severe aortic regurgitation. **Tan E**, Chan MW, Ho JSY, P S, Chua M, Shi A, **Yeo TC**, **Poh KK**, **Kong WKF**, **Sia CH.**

72nd Annual Conference of the Indian Association of Cardiovascular-Thoracic Surgeons (IACTSCON 2026), Mumbai, India, 26 February – 1 March 2026

The Cost-effective Techniques of Intraoperative Multilevel Paracostal Plane Analgesia Catheter Insertion In Thoracic Surgery Patients Enhance Early Recovery. **Sampath HK**, **Tam J.**

34th Annual Meeting of Asian Society for Cardiovascular and Thoracic Surgery (ASCVTS 2026), Antalya, Turkey, 16-19 April 2026

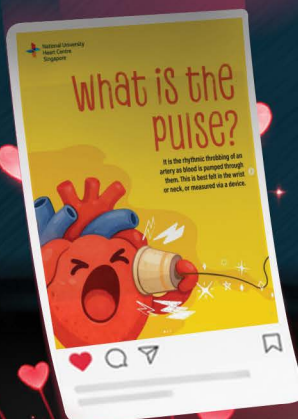
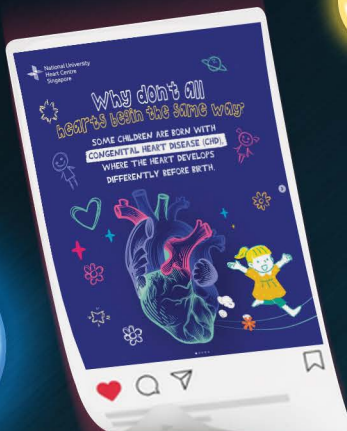
Effectiveness of Uniportal Video Assisted Thoracic Surgery in Catamenial Pneumothorax and Perioperative Considerations to Avoid Unnecessary Diaphragmatic Plications. **Sampath HK**, **Chen J**, **Leow L**, **Li Y**, **Ooi OC**, **Tam J.**

American Thoracic Society International Conference 2026 (ATS 2026), Orlando, Florida, USA, 15-20 May 2026

Successful Retrieval of a Migrating Fish Bone Injury to the Left Subclavian Artery by a Well-planned Multidisciplinary Surgical Approach. **Sampath HK**, **Huang D**, **Chan XW**, **Sorokin V**, **Tam J.**



National University
Heart Centre
Singapore



**FOLLOW
NUHCS**
For Latest
Heart Health
Happenings



FACEBOOK.COM/
NUHCS



@NUHCSOFFICIAL



@NUHCSOFFICIAL



@NUHCS



LINKEDIN.COM/
COMPANY/
NUHCS



@NUHCS