



NEWSLETTER

Summer 2025



INOCA GOES GLOBAL - AT ESC CONGRESS 2025!



**ESC
2025
Madrid**

INOCA INTERNATIONAL MEETING

Where have we come from with INOCA?
Where are we now? And where do we go from here.



Sunday 31st August 2025

CONTACT@INOCAINTERNATIONAL.COM

www.INOCAInternational.com

Follow the conversation: #INOCAatESC

INOCA International are truly honoured - and incredibly proud - to announce that the 2025 INOCA International Meeting of Minds will be hosted this year by ESC Congress in Madrid!

With over 30,000 cardiologists, clinicians, researchers, and healthcare leaders attending from around the world, ESC Congress is the beating heart of cardiovascular dialogue – and this year, INOCA will be right at the heart of it. But that’s not all.

INOCA International will also have an INOCA stand in the Exhibition Hall for all 4 days of ESC Congress too! So whether you are a clinician, an industry partner, a researcher, or simply curious to learn more – come find us in the Exhibition hall - we would love to meet you!

**Stop by our stand and let’s talk
about the future of INOCA together!**

The INOCA International meeting is a private, invitation-only session with limited places and high demand, so if you would like the opportunity to attend this groundbreaking meeting please register your interest early by emailing - contact@INOCAInternational.com

ESC Congress 2025 *The Beating Heart of Cardiovascular Dialogue*

To be given the opportunity to bring updated knowledge and understanding about INOCA conditions to the eyes, ears and minds of over 30,000 ESC Congress attendees from around the world is such an amazing opportunity and this incredible achievement would not have been possible without the outstanding support of ESC Congress, the Congress Teams, our Medical Advisory Board members and our Management Team. I hope every single one of you will take a well deserved bow when you read this... because this is so much more than just a meeting, this is about making history!

Sign up now to be part of INOCA history at ESC 2025 — places are limited!
(Note: This session is only open to registered in-person attendees of ESC Congress 2025)

#INOCAatESC





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Visit our INOCA Meeting Page



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One of the main frustrations for INOCA patients is often the lack of awareness about INOCA conditions, so this year's INOCA International meeting has been designed with a view to reaching, speaking to and discussing INOCA with as many Cardiologists (and those in related fields) as possible.

INOCA International will be taking the INOCA patient voice to ESC Congress, sharing the typical INOCA patient journey with as many of the 30,000+ attendees as possible and raising awareness and understanding at a level and on a scale that has just not ever been possible before today - and all of this has been made possible by the generous hosting of The 2025 INOCA International Meeting by ESC Congress.

This year's meeting is focused on open discussion, Q&A sessions and panel debate, fully encouraging open conversation and a valuable learning experience, and all of this is in addition to hosting an INOCA International stand in the ESC Congress Exhibition Hall for all 4 days of Congress too - WHAT a truly incredible opportunity!

To find out more about the Meeting, the programme, the speakers, the panel guests and much more, please visit and bookmark our dedicated website landing page for all the live updates and news! Be sure to also follow us on our social media platforms too.

<https://inocainternational.com/inoca-international-at-esc-congress-2025>



CONNECT WITH US

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<https://www.linkedin.com/in/inoca-international-152753231/>

For our X page (formerly Twitter)

<https://twitter.com/InocaInternatiil>



Website



Instagram



X



TikTok

IN THIS ISSUE

- INOCA International at ESC
- Refractory Angina
- Unmasking Angina
- A Journey Unveiled
- INOCA can happen to Anyone
- Summary information Sheets
- GTN Summary Sheet
- Medical Alert Cards
- TAKOTSUBO
- Magnetocardiography
- ESC Guidelines on
- Chronic Coronary Syndromes
- WHF Patient & Carer survey

Refractory Angina

What do you do if your patient's angina is not responding to treatment?

A superb author group led by Dr Ranil de Silva and including some of the world's leading experts in angina (and distinguished members of our INOCA International Medical Advisory Board), have come together to create a state of the art review on Refractory Angina - and what a review it is!

This is a truly comprehensive, in-depth review that deep dives into all aspects of the angina world and, very importantly for all those dealing with ischaemia/angina with non obstructed coronary arteries (INOCA/ANOCA), this review also includes non obstructed, chronic myocardial ischaemic syndromes and myocardial bridges too.

"It is now well-established that angina may also be caused by ischaemia resulting from coronary microcirculatory disorders, coronary vasospasm, and bridging in the absence of obstructive epicardial coronary disease or after "successful" revascularization. This increasingly prevalent and symptomatic group of patients, with both angina and demonstrable ischaemia, have been excluded from the conventional definition of refractory angina."

If you are looking for the latest insights into the diagnosis, treatment and management of angina - in all its forms - this review is definitely a must read! "In this review, a redefinition of refractory angina is proposed to include the full spectrum of patients experiencing persistent angina despite current maximal guideline-directed medical and revascularization therapies."

If you haven't read it yet, you can read the full article on this link -

<https://academic.oup.com/eurheartj/advance-article/doi/10.1093/eurheartj/ehaf284/8180268?searchresult=1>

Have you seen the latest state of the art review on **REFRACTORY ANGINA?**

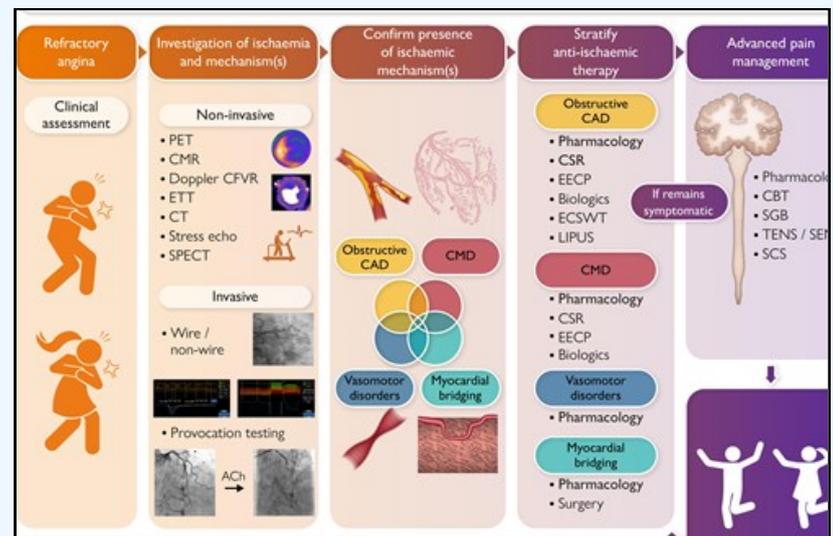
ESC European Society of Cardiology
European Heart Journal (2023) 00, 1-20
STATE OF THE ART REVIEW
Ischaemic heart disease

Refractory angina: mechanisms and stratified treatment in obstructive and non-obstructive chronic myocardial ischaemic syndromes

Ranil de Silva^{1,2,8}, Kevin Cheng^{1,2}, Timothy D. Henry³, Divaka Perera^{4,5}, Viviany R. Taqueti⁶, Ana Abreu⁷, Fabienne Vervaat⁸, Martha Gulati⁹, Hiroaki Shimokawa^{10,11}, Felicitia Andreotti^{12,13}, and Juan-Carlos Kaski¹⁴

https://academic.oup.com/eurheartj/advance-article/doi/10.1093/eurheartj/ehaf284/8180268?searchresult=1#google_vignette

www.INOCAInternational.com



Unmasking Angina - Beyond the Stereotypes

When we picture angina, the classic image is often of an older man clutching his chest, experiencing crushing pain. However, this stereotypical view is far from the complete picture. Angina can affect men and women, young and old and symptoms can vary significantly, not just between male and female but also in patients diagnosed with INOCA (Ischaemia with Non-Obstructive Coronary Arteries). In addition to chest pain, symptoms can also be felt in the back, arms, hands, neck and stomach. Dr. Tom Hyde emphasized a critical takeaway for both clinicians and patients in a recent interview recorded with INOCA international - that a lack of traditional cardiac risk factors does not preclude someone from experiencing angina. This insightful overview challenges preconceived notions and advocates for a broader understanding of this complex condition.

This is the way many people think about

ANGINA

- A man's condition
- An older person's condition
- Crushing pain in the chest

BUT angina doesn't always look like this!

#INOCAatESC

N.B. Nothing in this newsletter should be considered in any way as advice or recommendation. All information contained in this newsletter is an opinion only and is shared here only in the hope that it is of interest to other patients and medical professionals. Always consult your own medical practitioner before trying any new medications or therapies and before changing any of your current routines.

A Journey Unveiled

One Woman's Powerful Path to an INOCA Diagnosis

In a poignant three-part video series, a young woman named Rebecca bravely shares her personal odyssey from the unsettling onset of symptoms to finally receiving an INOCA diagnosis. Her story, both powerful and deeply moving, offers an invaluable glimpse into the often-challenging reality being faced by those with INOCA conditions.

The series begins with her candid account of the mysterious symptoms that first emerged, detailing some of the frustrations and hurdles she encountered in the period leading up to her diagnosis. Viewers will resonate with the common struggles of being misunderstood and dismissed as she relates how she found herself navigating a healthcare system which itself was often very unfamiliar with INOCA.

The second video marks a turning point, as she describes the profound relief and validation she felt upon finding a doctor who truly understood INOCA. This segment highlights the critical importance of informed clinicians in the patient journey.

Finally, in a compelling conclusion, she speaks powerfully about the moment of diagnosis itself and the immense mental health impact it had of stopping the exhausting fight for recognition and understanding.

Rebecca's story is an upsetting, yet ultimately empowering, testament to the toll of undiagnosed chronic illness. You can find these impactful videos on our INOCA Facebook page, posted between May 11 and 15, 2025. Rebecca's journey is a must-watch for anyone seeking to understand the real life lived experience of INOCA!

<https://www.facebook.com/groups/491395198372627>

INOCA Clip 1
Not rare
Not benign
Not just affecting older women

INOCA Clip 2
Seeing a doctor who understands INOCA really can make all the difference!

INOCA Clip 3
Getting a diagnosis of INOCA can have a profound effect too

INOCA CLIP 4
Does age play a part in getting a diagnosis?

INOCA Clip 5
What has been the worst part of your journey?

Double click the image below to visit our page

[INOCAInternational.com](https://www.inocainternational.com)

INOCA INTERNATIONAL CAS, CMD, Vasospastic/Microvascular Angina &...

This is the information page for INOCA INTERNATIONAL INOCA stands for Ischaemia with Non Obstructed Coronary Arteries. For the purposes of this page...

facebookapp

INOCA

ITS TIME TO EXPAND THE DEFINITION OF HEART DISEASE

INOCA IS HEART DISEASE ... FULL STOP!

INOCA

INVISIBLE ON ROUTINE TESTS

DEVASTATING IN REAL LIFE

INOCA

ITS REAL - ITS UNDER DIAGNOSED - AND IT MATTERS!

INOCA

CONSTANT FATIGUE. CHEST PAIN. SHORTNESS OF BREATH.

INOCA

STRESS. ANXIETY. HORMONES.

INOCA

ASK YOUR DOCTOR:

- Could this be INOCA?
- Do I need more than an angiogram?
- Should we test for microvascular/vasospastic dysfunction?

Because asking questions is definitely allowed!

N.B. Nothing in this newsletter should be considered in any way as advice or recommendation. All information contained in this newsletter is an opinion only and is shared here only in the hope that it is of interest to other patients and medical professionals. Always consult your own medical practitioner before trying any new medications or therapies and before changing any of your current routines.

INOCA can happen to ANYONE - even YOU!

INOCA International were pleased to share a video on 7th June 2025 in our patient spotlight series featuring Cindy from the USA. This video highlighted how INOCA conditions can effect anyone at any time, even those who are fit, well, active and do not appear to have any of the usual cardiac risk factors.

Cindy had regularly been taking part in endurance events such as marathons, century rides and iron man triathlons. Although she had been active all of her adult life she began to experience sporadic episodes of high heart rate, extreme fatigue, chest pain, palpitations and shortness of breath.

Her episodes increased significantly and she was diagnosed with ischaemia and placed on medication. The symptoms continued and she underwent a provocative angiogram after which she was diagnosed with severe Vasospastic Angina and a Myocardial Bridge. Her current medications are largely effective, but she does still continue to have symptomatic periods.

It is well known and well documented that those who take care of their well-being by following a healthy diet, keeping fit, limiting alcohol and not smoking can still become an INOCA patient.



Did you think INOCA only happened to those with cardiac risk factors?

INOCA

can happen to anyone
It can even happen to you!

INOCA Patient Cindy shares how she was diagnosed with Coronary Artery Spasm and a Myocardial Bridge, despite always having been very fit and very active.

Please do not dismiss cardiac symptoms. These conditions can effect teenagers, young adults, the middle aged and also the elderly - nobody is immune, so please educate yourself, listen to your body, be aware of any changes and do not be afraid to seek medical help and advice.

INOCA CAN OCCUR
even in those who have none
of the usual cardiac risk factors

You can watch Cyndy's video here -

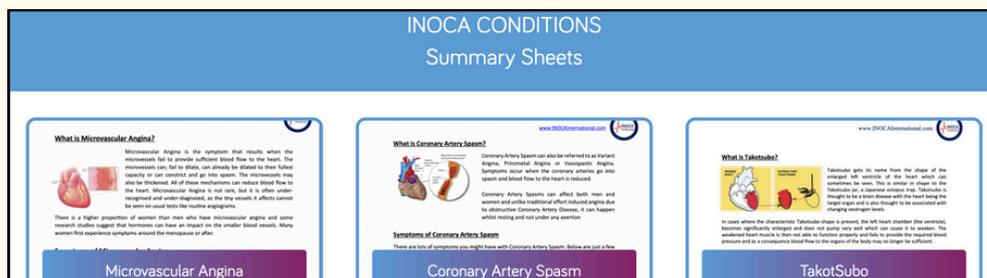
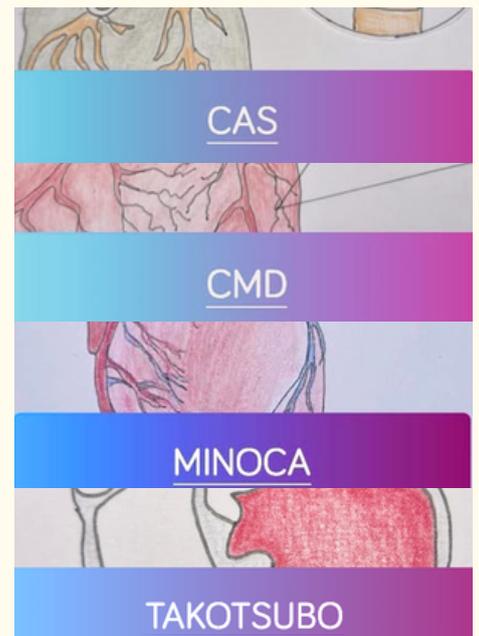
<https://www.facebook.com/groups/491395198372627>

INOCA CONDITIONS - Summary Information Sheets

Have you checked out our INOCA Summary Information Sheets yet? Brought to you by INOCA International, each Summary Sheet has been created with the input of Medical Advisory Board Members and each one has an easy-read version for anyone who might prefer visual learning too!

The Summary sheets cover Coronary Artery Spasm, Microvascular Angina, MINOCA and Takotsubo. They are written in a simple and easy to understand way with information about what the condition is, how it presents, the pathway to diagnosis and what interventions are available to help with symptoms.

Great for doctors, students, patients, families, carers, and more - and all free to download on this link - <https://inocainternational.com/what-is-inoca>



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GTN Summary sheet

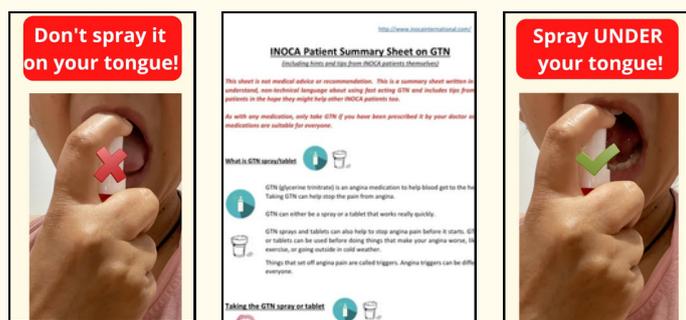
Listening to and acting on patient requests asking for a no nonsense, easy to understand summary sheet on how and when to take fast acting nitrates, INOCA International created just that - the next in our growing series of summary sheets. This summary sheet is slightly different to our previous ones as this includes a hints and tips section from other INOCA patients that you may find useful.

Please note that nothing in these documents should be considered in any way as any form of medical advice or recommendation. These are simply summary sheets written in an easy to understand, non technical language and include a collection of hints and tips shared by INOCA patients themselves in the hope of helping other fellow INOCA patients too.

As with any medication, only take GTN if it has been prescribed for you by your doctor as not all medications are suitable for everyone. Please remember that it is also very important you read the information leaflet that is included with your GTN fast acting medication as this contains important information about precautions, possible side effects and more. You can also ask your Doctor, Pharmacist, or care team if you need more information. There is, as always, an easy read version for people who prefer a visual format.

You can view/download all our summary sheets here - <https://inocainternational.com/downloads/>

You can also watch our short GTN video here - https://youtube.com/shorts/fVqIATDcg_Q



Medical Alert Cards



Did you know that INOCA International provide Medical Alert Cards specifically for INOCA Conditions? Do you have a copy of our INOCA conditions Medical Alert Card yet?

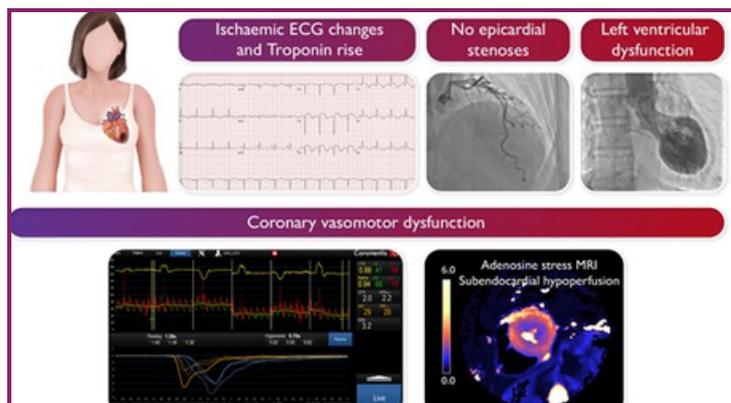
Have important INOCA information in one easily accessible place if presenting to somewhere/someone new or in an acute situation. Carry it in your pocket, in your handbag, in your wallet, or at the back of your notebook/briefcase etc! Just wherever is most convenient for you.

First offered at our 2019 Meeting of Minds, these alert cards continue to be very popular. You can get your free INOCA International Medical Alert Card download here! <https://inocainternational.com/downloads/>

The card also includes useful links and QR codes to information about INOCA which can then be easily shared with your family, friends, loved ones and care teams too!

TAKOTSUBO

An Acute Myocardial Ischaemic Syndrome?



There have long been discussions about whether Takotsubo (also known as Broken Heart Syndrome) is, or is not, an INOCA condition. This article (authored by Professor Colin Berry et al and published in the European Heart Journal) proposes that Takotsubo should be reclassified under the umbrella of 'myocardial ischaemic syndromes'.

In a study of 1,750 patients with Takotsubo, only 15% had coronary artery disease, yet mortality rate was similar to myocardial infarction with longer term prognosis also impaired by cardiovascular events. Cardiovascular preventative therapy is also inconsistently prescribed when Takotsubo is diagnosed as evidence-based therapy is still considered lacking despite the risk of longer-term cardiovascular morbidity.

Typical features of Takotsubo can include chest pain, a rise and fall in Troponin, ST-segment deviation and left ventricular systolic dysfunction,. However, because the pathogenesis of Takotsubo involves multiple systems, it remains to be determined whether targeting one mechanism will benefit patients.

Based on advances in scientific knowledge the conclusion is that Takotsubo should be reclassified as an acute myocardial ischaemic syndrome.

This new perspective may support, encourage and energize novel therapy development for this condition.

<https://academic.oup.com/eurheartj/article/46/17/1582/8008631>



WHAT IS Magnetocardiography?

MAGNETOCARDIOGRAPHY

CAN A 90 SECOND SCAN REALLY HELP TO DIAGNOSE INOCA/ANOCA?

| MCG Diagnostic Features | | | |
|--|--|--|---|
| T-Wave or QRS Multipolarity | RT Angle | T-Wave Dynamics | ST Elevation |
| Definition: Multiple current sources within the T-wave or QRS complex | Definition: Magnetic field angle difference between the R-peak and T-peak | Definition: Amount of magnetic field rotation within the T-wave | Definition: Elevated magnetic field in the ST segment compared to baseline |
| Abnormal Feature: [Heatmap showing multiple current sources] | Abnormal Feature: [Heatmap showing large angle difference] | Abnormal Feature: [Waveform showing T-wave rotation] | Abnormal Feature: [Waveform showing ST-segment elevation] |
| Reference: [Heatmap showing single current source] | Reference: [Heatmap showing small angle difference] | Reference: [Waveform showing stable T-wave] | Reference: [Waveform showing baseline ST-segment] |

<https://www.sciencedirect.com/science/article/pii/S2666802224000673>

Dr Odayme Quesada

Christ Hospital Cincinnati



One of the authors on the recent publication very kindly shared her summary thoughts and insights

"Evaluation of coronary microvascular dysfunction using magnetocardiography: A new application to an old technology"

Read Dr Quesada's Summary thoughts here - <https://inocainternational.com/wp-content/uploads/2025/05/Dr-Odama-QuesadaMay-2025.pdf>

For patients battling the puzzling symptoms of Coronary Microvascular Dysfunction (CMD), it seems a new hope may be on the horizon. Researchers are currently exploring whether an innovative, non-invasive technology called magnetocardiography (MCG) could offer a diagnostic breakthrough for this often-misunderstood heart condition.

In a recent study led by Namrita Ashokprabhu et al, researchers investigated the potential of MCG - a technology that measures the heart's subtle magnetic fields - to identify CMD. What could make MCG particularly appealing to patients is that it is non-invasive and is a 'rest-based' scan, meaning patients do not need to undergo strenuous exercise or chemically induced stressors during the test.

The study, which involved 79 participants, concluded that magnetocardiography shows promise as a diagnostic tool for CMD. This study also provides the first reported data on the use of MCG for the detection of CMD in ANOCA patients. As compared to the reference-standard invasive CFR, it seems that MCG can detect CMD with comparable efficacy to currently available non-invasive diagnostic modalities in a rapid, safe, noninvasive assessment without ionizing radiation.

While the findings are encouraging, the authors emphasize the need for further studies to fully validate MCG as a reliable diagnostic pathway for patients suffering from this often-elusive condition. One of the authors - Dr Odayme Quesada - very kindly shared her summary thoughts and insights here -

<https://inocainternational.com/wpcontent/uploads/2025/05/Dr-Odama-QuesadaMay-2025.pdf>

What's new in the 2024 ESC Guidelines on Chronic Coronary Syndromes?

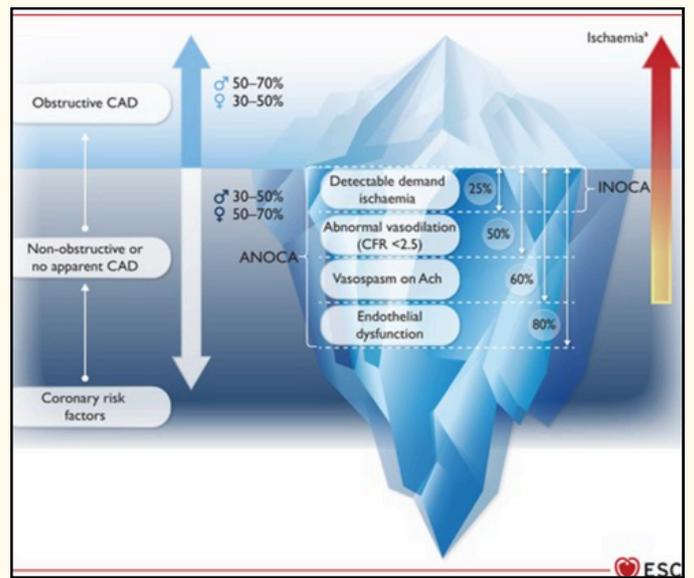
Have you watched the video recorded with Professor Felicità Andreotti at THE 2024 INOCA International SUMMIT yet? Professor Andreotti was co-chair of the Chronic Coronary Syndrome Guidelines Committee, and made a superb presentation at last year's INOCA International Meeting of Minds, digging deeper into the detail of the guidelines and discussing how the guidelines might impact both doctors and patients. If you haven't watched Professor Andreotti's video already you can watch it here -

<https://inocainternational.com/2024-the-inoca-summit-videos/>

The 2024 ESC Guidelines on Chronic Coronary Syndrome are also available on open access so they can be read, downloaded and/or or saved to a device to be read offline at your convenience.

You can also access the 2024 ESC Chronic Coronary Syndromes Guidelines here -

<https://academic.oup.com/eurheartj/article/45/36/3415/7743115>



World Heart Federation Patient & Carer Survey

Share Your Experience to help improve global heart care

Are you living with a cardiovascular condition, or caring for someone who is? You are invited to take part in an important survey led by the World Heart Federation.

This short survey (which takes around 10 minutes to complete), asks about your experiences of living with cardiovascular disease (CVD), especially when it occurs alongside other conditions such as diabetes, high blood pressure, kidney disease, or depression.

Your answers will help researchers to understand how care could be better, more personalised, and easier to access for people with complex health needs.

The results will also help to develop the World Heart Federation Roadmap on Multiple Long Term Conditions and Integrated Care.

[**WHF SURVEY**](#)

Are you a patient living with a Cardiovascular Disease? Or are you caring for someone who does?

As part of its ongoing work to improve cardiovascular care

World Heart Federation

is conducting a patient and carer survey to better understand the experiences of those living with cardiovascular disease (CVD) alongside other chronic conditions such as diabetes, hypertension, kidney disease, depression, and more. The survey also aims to explore the challenges patients face in accessing integrated care, where health services are coordinated to provide seamless, person-centred support across multiple conditions.

Insights from this survey will directly contribute to the development of the **WHF Roadmap on Multiple Long-Term Conditions and Integrated Care** helping to shape strategies to improve care delivery and outcomes for people living with complex health needs.

The survey will take approximately 10 minutes to complete.

If you have any questions, please contact: ana.raspail@worldheart.org

This is a global initiative designed to improve patients' health by making care more 'joined up' and co-ordinated. By sharing your voice, you are helping to shape the future of cardiovascular care for patients around the world.

About the World Heart Federation:

The World Heart Federation (WHF) is a global organisation based in Geneva in Switzerland. It brings together more than 200 member organisations, ranging from heart health charities to medical societies in over 100 countries.

WHF work closely with the World Health Organisation and lead international efforts to prevent and manage heart disease and stroke. Their mission is to improve heart health for everyone, everywhere.

How to Take Part:

The survey takes about 10 minutes to complete. You can access the survey on the link below. Any questions? Please email: ana.raspail@worldheart.org

<https://surveymonkey.com/r/KG7GJTG>

INOCA INTERNATIONAL AT ESC CONGRESS 2025



**ESC
2025**
Madrid



**SEE
YOU
THERE!**

*Want to join us at the INOCA
International Meeting of Minds
at ESC Congress 2025?*

Find out more and register your interest here!
(But be quick, as places are limited!)

PLEASE NOTE:

Registration of interest for this year's Meeting of Minds is open only to registered in-person participants of ESC Congress 2025

ENQUIRIES TO

contact@inocainternational.com



**ESC
2025**
Madrid

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**Thank you for reading our
2025 INOCA International
Summer Newsletter!**

**We hope the Summer months
bring warmth to both your heart
and your home with lots of
happiness for you and your
family too!**

**From all the team at
INOCA International**



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