The cutting-edge Inaugural Session began with ESC President, Jeroen Bax, in a video depicting a CV lab of the future. He said, “Often in life, our biggest limitation is our lack of imagination. But that’s not something we can afford, not in cardiovascular research. No one knows where the science will lead. What we do know is that we must keep pushing ourselves to dream bigger-bigger and bolder.” When talking about being a cardiologist today, Prof. Bax described some of the impressive breakthroughs over the last 20 years but urged that with so much focus on new technology, we must not lose sight of the person we are treating and how we must always empathise with patients.

“Patients turn to us, not only to fix their hearts, but to calm their fears. They need us to connect with them,” said Prof. Bax.

In the Special Guest Interview, we heard from world-famous musician and actress, Barbra Streisand and her crusade to promote heart health, particularly championing improvements for women. “Many people think heart disease only strikes old men. Women are not making a personal connection with heart disease and sharing their stories,” she stated. As a message to ESC delegates, she went on to say, “I want to thank you for the research you are doing that is expanding the boundaries of cardiovascular medicine, allowing millions more people—men and women—to lead healthier lives.”

From one international superstar, to another, Professor Eugene Braunwald gave the Inaugural Address on the key partnership between academic medicine and industry, using cholesterol research and statins as an example. When talking about the future and advances such as precision health, digital health and big data, Prof. Braunwald concluded, “One thing is clear, collaborations between academia and industry will become even more important when applying these emerging technologies.” In recognition of his enormous contribution, Prof. Braunwald was presented with a commemorative plaque.

We heard the stories of three exceptional cardiologists: Ottavio Alfieri (San Raffaele University, Milan, Italy), Evgeny Shlyakhto (Almazov Centre, Saint Petersburg, Russia) and Marc Pfeffer (Brigham and Women’s Hospital, Harvard Medical School, Boston, Massachusetts, USA) and, in recognition of their contribution, they were presented with the ESC’s highest honour, the ESC Gold Medal. More than 250 newly elected Fellows of the ESC (FESC) were welcomed and applauded. In a special tribute to the first FESC, the prominent Dutch cardiologist, Paul Hugenholtz, Prof. Bax proudly announced that the new Paul Hugenholtz Lecture on Innovation in Cardiology will now take place at every ESC Congress.
Genetic engineering to mend the heart

ESC William Harvey Lecture on Basic Science

Genetic engineering to mend the heart

ESC Congress News – Sunday 26 August

Large Canadian study provides important clinical insights into spontaneous coronary artery dissection

Yesterday, in a late-breaking abstract presentation, Doctor Jacqueline Saw (Vancouver General Hospital, Vancouver, British Columbia, Canada) reported initial findings from a large prospective, multicentre, Canadian cohort study of spontaneous coronary artery dissection (SCAD) conducted to explore the clinical presentation, natural history and long-term cardiovascular outcomes relating to the condition (Abstract 76).

“SCAD has been poorly understood for many years and there is still much to learn, which is why this study is so important.”

She explains that, “It is only recently, with remarkable advances in intracoronal imaging, that we are seeing SCAD as an underlying cause of myocardial infarction (MI), particularly in women. New imaging techniques have improved our recognition of the angiographic appearance of SCAD, but our knowledge of many clinical aspects of the condition is still very limited, and this is why we performed the study.”

A total of 750 patients (88.5% women; mean age 51.8 years) with acute presentation of non-atherosclerotic SCAD were prospectively recruited from Canada (20 centres) and the USA (two centres) over a four-year period up to June 2018. A third of patients had no cardiac risk factors. A prior history of SCAD was reported in 5.6% of patients and 2.4% had a family history. “Emotional stress was more commonly reported than physical stress as a precipitating factor, accounting for 50.3% and 28.9% of cases, respectively,” reports Dr. Saw. “Fibromuscular dysplasia was the most frequent potential predisposing condition (31%), with others including peripartum status, fertility treatment, systemic inflammatory disease and connective tissue disorders. All patients presented with acute coronary syndrome, primarily non-ST-elevation MI (69.9%), followed by ST-elevation MI (29.7%) and unstable angina (0.4%). The predominant presenting symptom was chest pain (91.5%). Consistent with the literature, SCAD type 2 occurred more frequently (60.2%) than type 1 (29.0%) or type 3 (10.8%).

Considering the medical management of SCAD, Dr. Saw remarks, “As might have been expected, based on reports in the literature advocating a conservative strategy, most patients (84.3%) in our study received conservative treatment. Others underwent percutaneous coronary intervention (14.1%) and a minority had coronary artery bypass surgery (0.7%).” The in-hospital major adverse event rate was 8.8%, including cardiac arrest (3.9%), cardiogenic shock (2.0%), recurrent MI (4.0%) and unplanned revascularisation (2.5%). Importantly, “the 34 patients (4.5%) with peripartum SCAD had higher in-hospital major adverse events,” notes Dr. Saw. The incidence of major adverse cardiovascular events (MACE) at one month was 8.8%, consisting primarily of recurrent MI (6.1%), stroke/transient ischaemic attack (1.2%) and unplanned revascularisation (2.7%). Peripartum SCAD and connective tissue disorder were independent predictors of 30-day MACE. Dr. Saw comments that, “Acute in-hospital and one-month survival was good, with only one death (0.7%) reported.” The study will continue to monitor MACE in the longer term and plans to report findings at six and 12 months, and annually for a further three years.

Notably, although the majority of patients received conservative treatment, in-hospital and one-month survival was good.

Despite the good survival data, a small proportion of patients (4.9%) experienced recurrent cardiac symptoms requiring repeat emergency room visits within 30 days post-discharge, and 2.5% required admission for chest pain,” notes Dr. Saw.

“These initial data provide some good insights into the clinical presentation, precipitating stressors, predisposing conditions and MACE relating to this important medical condition, but further studies are needed to more fully explore the management of patients with SCAD,” she concludes.
Understanding when less is more

Prof. Martin Leon

Ahead of his Andreas Grüntzig Lecture this morning, Professor Martin Leon (Columbia University Medical Center, New York, USA) explains the thinking behind his intriguingly entitled talk, ‘The interventional paradox: When more is more and when less is more’.

For decades, interventional cardiologists have been devising ways to use catheter-based techniques to improve patient outcomes while avoiding surgery. “It has been an evolution and now a revolution,” explains Prof. Leon, “starting with what we now regard as the simple balloon angioplasty technique devised by Andreas Grünztig and subsequently utilising advanced new device technologies to provide doctors with access to a wide range of exciting, even radical, tools. These new technologies are seductive but we should resist the temptation to always make them a first port of call. Instead, we should use our clinical judgement to decide whether a complex approach will improve outcomes to any meaningful degree beyond that achievable with a more simple technique.”

There are times, he says, when more is more, “such as we have seen with the transcatheter valve technologies that have transformed the lives of hundreds of thousands of patients.” But simplicity may be the best approach in other situations. “Stents are a cornerstone of management in practices around the world but they may not represent the best care for all patients,” explains Prof. Leon. “New, easy-to-use—and widely available—tools to gauge their suitability are underutilised, possibly because it is easier to follow standard practice than to explore potential alternatives. For the sake of our patients we need to combine our experience with the available scientific evidence to enable us to understand how and when to use available technologies more intelligently,” he urges.

“Complexity is not always the best policy; simplicity can often be as effective”

Prof. Leon is confident that interventionalists are switching on to this way of thinking. “We are definitely seeing a change, although it is slower than I would like! Educating the younger generation of cardiologists about the need to perform procedures and to focus on the patient is an important step forward.”

He sees his talk very much as a tribute to Andreas Grünztig and thinks that its message is in line with the pioneer’s philosophy. “Interventional cardiologists are building on the early principles he used in the development of a procedure that culminated in the first successful balloon angioplasty technique and we are now applying them in a broader setting. If he were alive today, I think that Professor Grünztig would be happy to see how the research he conducted over 40 years ago has generated the durable and meaningful advances evident in interventional cardiology today.”

Learn more about the first CE Mark-approved transcatheter option to reduce tricuspid regurgitation.

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ESC Andreas Grünztig Lecture on Interventional Cardiology

Understanding when less is more

The ESC welcomes...

Don’t miss!

The ESC Andreas Grünztig Lecture on Interventional Cardiology
Today, 10:05 – 10:40, Yerevan - Spotlight Village

What’s Your Diagnosis? Solution

BROUGHT TO YOU BY THE EUROPEAN ASSOCIATION OF CARDIOVASCULAR IMAGING (EACVI)

There is patchy mid-wall late gadolinium enhancement (arrows, left image) and also bilateral mediastinal lymphadenopathy (arrows, right image) consistent with cardiac involvement in sarcoidosis.

Kenneth Fung, Barts Heart Centre, London, UK
Steffen Petersen, Barts Heart Centre, London, UK

∗ Data reflective of US data

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* Data reflective of US data
One of his most important lessons is the Survival And Ventricular Enlargement (SAVE) trial, which in 1992 demonstrated that use of an angiotensin converting enzyme inhibitor (ACEi) could prolong survival and reduce the development of heart failure following myocardial infarction. In addition to improving patient prognosis, SAVE is particularly special since it was based on Janice’s basic investigations, and has made ventricular remodelling a therapeutic target for the discovery of new approaches to treating heart failure.

“Researchers are not satisfied with today, looking to tomorrow and beyond to see how treatment can be improved.”

“It is fascinating to see how discoveries have improved practice,” confesses Dr Malik. “I look for patients with cardiovascular disease has improved dramatically, with the results of randomised, placebo-controlled clinical trials (RCTs) leading to practice changes. The RCT is our ‘medical food for determining the benefits, as well as the risks, of a therapeutic approach. The results are not always as expected and being a student of RCTs also teaches humility. These improvements generally do not come about as a quantum leap, but are the result of many small steps taken by dedicated researchers. This really impresses me. It is challenging enough to practise today’s medicine, let alone push the boundaries for change.”

Prof. Pfeffer has also personally witnessed an improvement in the relationship between academia and industry. “We have moved on from what was considered the bad old days and have entered a new era characterised by transparency,” he explains. These changes, together with the move towards developing multidisciplinary cross-therapeutic area teams, should facilitate further progress.

What is the most important lesson Prof. Pfeffer has learned? “To play well with others!” he laughs. “Everything accomplished is not ‘I’, it’s ‘we’. I’m a ‘big picture’ person but I’ve been smart enough to work with ‘detail’ people. I consider myself really fortunate to be at such a top quality institution as the Brigham and Women’s Hospital where I have surrounded myself with the best people. On a daily basis, I am influenced and driven by a committed team and introduced to new ways of looking at issues by the younger generation of cardiologists and researchers coming through our institution.”

You don’t get to Prof. Pfeffer’s position by luck alone but he feels it has played a part. “Luck got me in the right place with the right people;” he says, explaining, that “My role as Principal Investigator on the SAVE trial led directly to my co-authorship of the PARA-DISE-MI trial—comparing combination angiotensin receptor-neprilysin inhibition with angiotensin-converting enzyme inhibition—in a similar patient population to SAVE. “This is a perfect example of how cardiovascular researchers are reshaping the field forward;” he says. “Twenty-five years after SAVE, we are now looking to see if we can do even better for these patients.”

If Prof. Pfeffer does have a concern for the future, it is that we may be forgetting the importance of the bigger picture. “As we become more and more subspecialised there may be a tendency to neglect the broader approach. With the increase in big data, we need to step back to make sure that statistically significant differences between treatments, which can be relatively small, are clinically relevant and to ask ourselves ‘What is best for the patient am I treating today?’”

CANTOS - one year on: What have we learned?

At ESC Congress 2017, results from the CANTOS trial provided the first evidence that antiinflammatory therapy with canakinumab, targeting the interleukin (IL)-1β pathway, leads to significant reductions in recurrent cardiovascular events.1 Importantly, reductions in cardiovascular events were of a similar magnitude to those seen following aggressive low-density lipoprotein cholesterol (LDL-C) lowering with proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors. We now know that LDL-C lowering and inflammation inhibition are completely independent and results from CANTOS, the first trial to specifically target inflammation, represent a remarkable advance in the atherosclerosis research world.

CANTOS - one year on: What have we learned?

Since ESC Congress 2017, the cardiovascular benefit of canakinumab has been shown to be directly related to the magnitude of inflammation reduction measured by on-treatment high-sensitivity C-reactive protein levels.2 Further to this, analyses on the relationship between the magnitude of canakinumab benefit and on-treatment levels of IL-6 have been conducted and will be presented as a Clinical Trial Update today (11.00 – 12.30 in Brahms - The Hub) and simultaneously published in the EHJ.

“The initial CANTOS findings have opened the floodgates to a wide range of new investigations.”

The striking effect of IL-1β inhibition on lung cancer incidence has also been further evaluated and investigations are ongoing to understand how these cancer-lowering effects may be integrated into anti-cancer treatment regimens. In another particularly interesting observation, canakinumab demonstrated reductions in cardiovascular events among patients with chronic kidney disease, a group at very high risk in whom LDL-C lowering appears ineffective and in whom inflammation likely plays an important role in accelerated atherosclerosis.1 Further studies of canakinumab in patients with severe renal failure or dialysis are planned.

Over the past year, the CANTOS Investigator Group has been able to present updates that have made researchers re-evaluate many mechanisms of disease. A year on, data from CANTOS continues to have wide implications for both clinical care and the future of atherosclerosis research.


Don’t miss!
New data from CANTOS in the ‘Innovative strategies for secondary prevention’ session (08.30 – 10.00 in Minsk – Spotlight Village) and in the ‘Clinical Trial Updates’ session (11.00 – 12.30 in Brahms - The Hub).

The initial CANTOS findings have opened the floodgates to a wide range of new investigations.”

Since ESC Congress 2017, the cardiovascular benefit of canakinumab has been shown to be directly related to the magnitude of inflammation reduction measured by on-treatment high-sensitivity C-reactive protein levels. Further to this, analyses on the relationship between the magnitude of canakinumab benefit and on-treatment levels of IL-6 have been conducted and will be presented as a Clinical Trial Update today (11.00 – 12.30 in Brahms - The Hub) and simultaneously published in the EHJ.

The Tour de Coeur arrives at the heart of cardiology once again

Thousands of delegates have flown from all over the globe to attend the world’s largest conference in cardiovascular medicine, but the now-famous group of Swiss cardiologists cycled 600 km to Munich. In its eighth year, the annual Tour de Coeur sees Swiss delegates cycle from Geneva to the ESC Annual Congress venue to promote the importance of physical activity.

Professor Bax said, “Congratulations to our Swiss cardiology friends on another cycling adventure to ESC Congress 2018. We look forward to seeing them again after their own Tour de France next year!”

ESC Congress 2018, Munich, Germany

Visit the ACTELION BOOTH D700 (Exhibition 2)
to learn more about PAH and to download the Satellite Symposia key slides
Sessions of the day

7:30
Bach General cardiology crash course - part 1

Beethoven Controversial issues in non-ischaemic cardiomyopathies

Brahms How – and when – to do right

Händel Cardiovascular disease and rheumatoid arthritis

Schumann The failing tricuspid valve – Treatment options

8:30
Munich ESC 2018 Guidelines Overview

Centre Stage Live in the Box: TAWI beyond the tricuspid highrisk elderly

Bach Acute emergencies for the young cardiologist

Beethoven Click here for new guidelines

Brahms Editors’ Choice

Händel A tricuspid valve – from prevention to catheter intervention

Schumann Current controversies in clinical trial design

Ankara Coronery intervention Hot Topics in 2018

Minsk Innovative strategies for secondary prevention

Belgrade Expert Advice - Management of pulmonary embolism

Cairo The value or the ventricle? A key question in mitral regurgitation

Tirana Imaging for valve interventions


9:00
Yerevan Young Investigator Award Session - Valvular Heart Disease

Stockholm Young Investigator Award Session - Population Sciences

Moscow Young Investigator Award Session - Clinical Cardiology

Agora 1 Cardiac troponins: starting levels and outcomes

Agora 2 Exploring biomarkers in heart failure

Stockholm Digital Health Stage - Digital health in clinical practice

Science Box 1 The cardiac consult in Stroke

Science Box 2 Pathogenesis of pulmonary hypertension

San Marino Unsettled issues in severe aortic stenosis

Copenhagen Blood pressure, arterial phenotypes and risk

Aigars Emerging CMR Technologies

9:30
Yerevan Young Investigator Award Session - Valvular Heart Disease

Stockholm ESC Geoffrey Rose Lecture on Population Sciences

Moscow ESC Rene Lavent Lecture on Clinical Cardiology

10:05
ESC Andreas Grünitz Lecture on Interventional Cardiology

The European Heart Journal’s advances from prevention to intervention: the year in Cardiology

10:15
New opportunities for treating heart failure through next dose combinations - Experts on the Spot organized by Servier

Bach Reducing premature cardiovascular mortality in patients with type 2 diabetes: bidirectional practice in cardiology - Satellite - Experts on the Spot organized by Boehringer Ingelheim & Eli Lilly and Company

Beethoven Emerging evidence-based approaches to reduce residual atherosclerotic risk - Experts on the Spot organized by Novartis

Brahms Apoptosis in challenging circumstances - Translating the real world evidence data for your multi-morbid patient with atrial fibrillation - Experts on the Spot organized by Boehringer Ingelheim

Händel Uninterrupted NOACs in atrial fibrillation ablation: what have we learned from the clinical trials? Experts on the Spot organized by Boehringer Ingelheim

11:00
Munich 2018 ESC/ESH Guidelines on Arterial Hypertension

Centre Stage Live in the Box: Left atrial appendage closure

Expert Advice – Cardiogenic shock during an ICU night

Bach Left - preparing for the world to get the best

Beethoven The great debate: thrombocardiology post COMPASS

Händel Special issues from the 2017 ESC Guidelines on Valvular Heart Disease in General Cardiology

Schumann Meet the Experts - Safety first: avoiding adverse events with new cardiovascular drugs

Digital Health Stage - eCardiology: State of the Heart

Tirana Prevention and management of stroke: an interdisciplinary challenge

Ljubljana Patient engagement: a new frontier or a road well travelled?

Baku Advanced heart failure - Best advice to treat critically ill patients


12:00
Brussels ESC William Harvey Lecture on Basic Science

12:15
Agora 1 Social media for the cardiologist

Agora 2 The health care systems facing the challenge of an ageing community. The endeavor of next decades

Digital Health Stage - The effect of regulation on innovation

12:30
Stent Pioneer Richard A. Schatz

12:45
San Marino Acoustic pulse thrombolysis treatment for pulmonary embolism: a randomized study on the role of clinical efficacy and safety – Satellite Symposium organized by EKOS Corporation

Centre Stage The number 2 – Perfection? The ideal synthesis even in stable angina management - Satellite Symposium organized by Menarini

Bach Delivering outcomes that matter to patients – Connected imaging to treat the complex valves - Satellite Symposium organized by Siemens Healthcare

Beethoven The role of the implantable loop recorder in the 2018 ESC Syncope Guidelines - Satellite Symposium organized by Medtronic

13:00

Schumann Residual cardiovascular risk after an acute coronary syndrome: identifying, stratifying and managing patients at long-term risk of atherosclerotic cardiovascular events - Satellite Symposium organized by Actelion

Ankara organized by ActiAnezve

Minsk Biomarker-based approaches for improved atrial fibrillation management - Satellite Symposium organized by Novartis

Belgrade Sense the moment to optimize treatment for each patient with heart failure: why, when, and how - Satellite Symposium organized by Novartis

Cara Assessment of pharmacotherapeutic risks, goals and strategies to minimize cardiovascular risk post-myocardial infarction - Satellite Symposium organized by MSD

Damasco Cardiovascular risk reduction and the role of biological present and future therapeutic options - Satellite Symposium organized by Cleveland Clinic

Ben Oral anticoagulation in atrial fibrillation - From evidence-based medicine to daily clinical practice - Satellite Symposium organized by Daichi Sanyo

Ben Achieve more in pulmonary arterial hypertension - Satellite Symposium organized by Novartis

Stockholm Optimizing cardiovascular outcomes with PCSK9 inhibitors: what’s new before a potential next tier or stroke? - Satellite Symposium organized by Amgen Europe GmbH

Brahms Achieve more in pulmonary vascular disease : what is next? - Satellite Symposium organized by Amgen Europe GmbH

Novartis The role of the implantable loop recorder in the diagnosis and management of syncope - Satellite Symposium organized by Siemens Healthineers


Brahms The number 2 – Perfection? The ideal synthesis even in stable angina management - Satellite Symposium organized by Menarini

San Marino Acoustic pulse thrombolysis treatment for pulmonary embolism: a randomized study on the role of clinical efficacy and safety – Satellite Symposium organized by EKOS Corporation

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Beethoven The role of the implantable loop recorder in the 2018 ESC Syncope Guidelines - Satellite Symposium organized by Medtronic

13:45
Stent Pioneer Richard A. Schatz

14:30
Minsk Hot Line Session 1

Centre Stage Meet the Experts - PCI of complex bifurcations

Further information is available on the ESC Congress App

www.escardio.org/ESC2018
Can speckles track clinical outcomes?

Digital Health Stage
Key steps to innovation in medical devices

Beethoven

15:50
Centre Stage
Meet the Task Force of the 2018 ESC/ESH Guidelines on Arterial Hypertension

Digital Health Stage
Artificial Intelligence: Decision Support & Voice Interaction

Tunis - Library Room
Physician Burnout: Lessons for Cardiologists

15:55

ESC TV Stage
Meet the trialist - MARINER

16:00

What if a new drug lowers coronary revascularization? - Experts on the Spot organized by Servier

Brussels

New strategies for diagnosis and treatment in dilated cardiomypathy

Ljubljana

The promise of RNA-based therapeutics and diagnostics

Baku

2018 Imaging updates: recommendations and scientific initiatives

Vienna

Image Interpretation with the Masters

Brussels

MDC-10: New and improved tool for ECG interpretation

Moscow

Can we improve the efficacy of antithrombotic therapy in atrial fibrillation patients who underwent percutaneous coronary intervention? - Experts on the Spot organized by Novartis

Schumann

Bringing order to complexity: antithrombotic regimens for atrial fibrillation patients - Experts on the Spot organized by Boehringer Ingelheim

16:30

ESC TV Stage
Meet the trialist - CAMELLIA-TIMI 61

18:46

Vienna

The ECG in Acute Coronary Syndromes

Agora 1

Managing chest pain in acute coronary syndromes - A difficult task: recent advances - Experts on the Spot organized by Bayer

Minsk

Advances in anticoagulation to improve patient care in atrial fibrillation - Satellite Symposium organized by Pfizer

Moscow

Inflammation in reperfusion and remodelling - Young Investigator Award Session

Brussels

The new kid on the block is here to stay

Tunis - Library - Room

T1 and T2 Mapping in cardiac magnetic resonance - The new kid on the block is here to stay

Madrid

A Short Session on the Long QT Syndrome

Bach

Failing hearts: mission impossible?

Agora 2

There is no sweet spot in diabetes

Science Box 2

Advancements in nuclear cardiology

Moscow

The ECG in Atrial Fibrillation

Minsk

Advances in coronary surgery

18:15

Hyponatraemia: a key player in multisystemic diseases - Satellite Symposium organised by Servier

Cairo

Simple solutions to ensure efficacy in high cardiovascular risk patients - Satellite Symposium organised by Servier

Moscow

Managing coronary artery disease: Challenges in the "BD1" generation

Cairo

Nursing and Allied Health Professions Investigator Award

Stockholm

Srensen

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ESC Congress
Munich 2018
30-34 August

PCSK9 INHIBITION to PREVENT and TREAT Atherosclerotic Cardiovascular Disease (ASCVD)

From investigation to intervention: Identifying high-risk patients and clinical profiles—Diabetes, Statin intolerance and resistance, Recent ACS, Hypercholesterolemia, Advanced ASCVD—for PCSK9 Inhibitor-Based Management at the Front Lines of Patient Care

Join Your CV Colleagues for a Lunch, Learning, and Case Management Satellite Symposium Focused on...

The Landmark Trial-Based Evidence and Rationale for PCSK9 INHIBITION to PREVENT and TREAT Atherosclerotic Cardiovascular Disease (ASCVD)

Save the Time and Date: Monday Afternoon, August 27, 2018

Time: 13:00 – 14:00 | Lunch: 12:30 – 13:00 | Conference Room: Yerevan - Spotlight Village

No Registration Required to Attend

Funded by an independent educational grant from Sanofi Genzyme and Regeneron Pharmaceuticals

ESC Congress Munich 2018
Approximately 20% of all ischaemic strokes are directly caused by atrial fibrillation (AF). Importantly, strokes that arise from AF-related clots are particularly large and are a major cause of death and disability.

“We have made tremendous advances in understanding the cause of strokes in patients with AF and also in developing treatments that can reduce the risk; nevertheless, it’s still a big problem,” says Doctor Stuart Connolly (McMaster University, Hamilton, Ontario, Canada), who will today give the ESC Geoffrey Rose Lecture on Population Sciences (Sunday, 09:30 – 10:00; Stockholm – Village 1). “There has been much progress in understanding the role of anticoagulant medication for stroke prevention, but we have recently learned that there may be better ways to prevent stroke in patients with AF,” he continues.

“Treatments such as combination therapy with anticoagulants and aspirin, left atrial appendage (LAA) occlusion and new devices that are being tested show great promise.”

“Recent findings suggest there may be better ways than anticoagulation therapy to prevent stroke in AF.”

The Left Atrial Appendage Occlusion Study (LAAOS) III, of which Dr. Connolly is Study Chair, is the largest trial to date to explore the efficacy of LAA occlusion for stroke prevention. This international trial will randomise 4,700 patients with AF, in whom cardiac surgery is planned, to undergo LAA occlusion or no LAA occlusion. The results will inform future clinical practice regarding stroke prevention in AF.

“Silent, or subclinical, AF has also recently been shown to be a potentially important cause of stroke,” says Dr Connolly. “This is a promising research area, because it may help us to prevent stroke in patients who are not aware that they have AF. We need to understand just how important it is; do we need to treat it, and how can we best detect it?” So much progress in stroke prevention has been made in the last three decades; the question is where do we go from here?

How can cardiologists optimise social media?

Consider the global reach of the most-used social media platforms—Twitter, LinkedIn, Facebook, Instagram, YouTube—and it’s easy to see how social media has become so powerful. In this afternoon’s session ‘Social media for the cardiologist’ (Sunday, 12:45 – 13:45; Agora 1 – Agora), we explore how cardiologists can take advantage of this ever-present influence to connect with colleagues, share and gain knowledge and help with day-to-day decision making in their clinical practice.

There’s no denying the amount of time that people spend on social media, whether it be connecting with colleagues on LinkedIn, checking Facebook, Twitter or sharing posts on Instagram and YouTube, so why should busy cardiologists engage with it? As Shelley Wood, Managing Editor of TCTMD and Editorial Director at the Cardiovascular Research Foundation, New York, USA, who co-chairs today’s session explains, “Cardiologists can really use social media in different ways, depending on the medium they get involved with. People typically say that social media is a waste of time, but I think users can set their own parameters and spend as much or as little time on it as they choose.”

So, what can cardiologists get out of social media? “It’s a good way to connect with colleagues who are passionate about the same topics and to keep up to date with current research,” says Ms. Wood. “A recent survey carried out by TCTMD that looked at how our subscribers learn revealed that almost a third of respondents regularly browse social media… Of those with a Twitter account, 64% say they are using it to learn about new developments in their field of interest,” she says.

Facebook and LinkedIn are helpful for cardiologists in staying connected with colleagues and keeping up to date with new developments. However, Twitter is arguably the most useful platform as it is the most dynamic. Ms. Wood adds, “For those who see social media as a ‘time-sink’, it’s possible to use Twitter passively, in that it’s not always necessary to engage in discussions. By using hashtags, such as #Cardiologist, #Cardiology, #BIFIB and #TAVR, for example, tweets can be connected in a way that makes it easy for users to find and follow tweets about a specific topic.”

What about other ways that cardiologists can use social media? “Twitter in particular can be used as a ‘crowd source’ and many find it to be a good way of raising awareness of research. In published studies, patient recruitment for clinical trials that are enrolling, or to assist with day-to-day decision-making, such as asking for help with their cases. For example, seeking tips on patient care or asking for alternative approaches to problems, dosing strategies or particularly in interventional cardiology, specific techniques to use,” continues Ms. Wood. “Also, I read an interesting thread on Twitter recently that discussed failures—cardiologists were reaching out to others who had had the same setbacks with their cases and sharing ideas and advice.”

There is clearly a need to be sensitive when posting images, angiograms, CT scans, etc., to remain a cardiologist. It’s possible to use Twitter passively, in that it’s not always necessary to engage in discussions. By using hashtags, such as #Cardiologist, #Cardiology, #BIFIB and #TAVR, for example, tweets can be connected in a way that makes it easy for users to find and follow tweets about a specific topic.

Abstract of the day:

Link between forehead wrinkles and cardiovascular death

The physical signs of ageing, such as male pattern baldness, earlobe creases and xanthelasma, have been associated with cardiovascular death. While the exact reason for the link is unknown, the association is independent of chronological age and typical CV risk factors.1

As an additional feature of ageing, Doctor Yolande Esquirol (Paul Sabatier University – Inserm – CHU, Toulouse, France) and colleagues investigated a possible association between forehead wrinkles and all-cause and CV deaths (Abstract 85605). Today, Dr. Esquirol will present the fascinating results of the study. In a cohort of 3,221 volunteers aged 32, 42, 52 and 62 years at the time of examination, forehead wrinkles were clinically assessed for their number and depth. Wrinkle assessment scores were assigned, ranging from 0 (no wrinkles) to 3 (numerous deep wrinkles). The cohort was followed over a 20-year period.

During follow-up, 233 (7%) volunteers had died, with a significantly lower incidence of death (21%) in those with a wrinkle score of 0 compared with 4.6% in those with a score of 1 and 15.2% in those with a score of 2 & 3 (p<0.001). Dr. Esquirol says, “When we analysed the data using a Kaplan-Meier survival curve, we found a significantly higher cumulative incidence of death over time in the individuals given a wrinkle score of 2 & 3 compared with those given a lower score. In fact, the risk of all-cause mortality was six-fold greater in those with a wrinkle score of 2 & 3 compared with a score of 0, and this was double the risk compared with individuals given a score of 1. These differences were non-significant when multivariate adjustments were made.” However, when data were analysed specifically for CV death, there was an association between forehead wrinkles, regardless of age, gender, education, smoking, systolic blood pressure, heart rate, diabetes and dyslipidaemia.

It is hypothesised that: 1) the mechanisms involved in wrinkle development are similar to those of atherosclerosis, notably those concerning oxidative stress and alteration of collagen protein; or, 2) the vessels in the forehead are tiny and may be more sensitive to atherosclerosis, and so these wrinkles could be one of the early signs of vessel ageing. Further studies may reveal the reason for the association between CV death and the number and depth of forehead wrinkles, which appears to be independent of chronological age and CV risk factors.

Results from a one-year follow-up of the CULPRIT-SHOCK study, presented yesterday by Doctor Holger Thiele (Heart Center Leipzig at University of Leipzig, Leipzig, Germany) and simultaneously published in the New England Journal of Medicine, confirmed that culprit-lesion-only percutaneous coronary intervention (PCI) is preferred to immediate multivessel PCI for patients with acute myocardial infarction (MI) complicated by cardiogenic shock (Abstract 78).

“Culprit-lesion only PCI is preferred to multivessel PCI,” says Thiele, noting that, “This led to a downgrading of immediate multivessel PCI in patients with cardiogenic shock in the 2018 ESC/European Association for Cardio-Thoracic Surgery (EACTS) Guidelines on Myocardial Revascularization.”

One year on, the benefit of culprit-lesion-only PCI over immediate multivessel PCI on the composite endpoint of all-cause mortality or renal replacement in these patients is maintained.

A total of 684 patients were followed up for one year leading to a 99% complete follow-up. The one-year composite endpoint was 52.0% with culprit-lesion-only PCI and 59.5% with multivessel PCI (relative risk 0.87; 95% confidence interval [CI] 0.76–0.99; p=0.048),” says Dr. Thiele. “However,” he notes, “the 30-day statistically significant difference in all-cause mortality was attenuated at one year, which was 50% for culprit-lesion-only PCI and 56.9% with multivessel PCI (relative risk 0.88; 95% CI 0.76–1.01; p=0.07). A landmark analysis showed no difference in mortality between the two approaches between 30 days and one year but a significant difference within the first 30 days.”

In summarising, Thiele says, “The advantage of culprit-lesion-only PCI over multivessel PCI on all-cause mortality reduces with time but there is no increase in all-cause mortality between 30 days and one year. However, culprit-lesion-only PCI is possibly associated with a higher incidence of heart failure hospitalisations and more frequent repeat revascularisation at one year.” Overall, he suggests, “The one-year results of CULPRIT-SHOCK support the recent change in the 2018 ESC/EACTS Guidelines on Myocardial Revascularization.”

**Safe and effective stroke prevention in atrial fibrillation: The 2018 EHRA Practical Guide on NOACs**

According to 2016 ESC Guidelines on atrial fibrillation (AF), non-vitamin K antagonist oral anticoagulants (NOACs) should be used in preference to vitamin K antagonists for the prevention of stroke in patients with AF, except in those with a mechanical heart valve or mitral valve stenosis.1

"Use of NOACs is growing," says Doctor Jan Steffel (University Heart Center Zurich, Zurich, Switzerland), first author on the European Heart Rhythm Association (EHRA) Practical Guide on the use of NOACs. "The EHRA guide gives doctors easy-to-follow, practical advice on using these agents in a variety of specific clinical situations. The third edition2 was launched at EHRA’s annual congress in March this year and the impressive number of delegates the session attracted highlights the demand for this type of document."

The 2018 edition of the guide features several new chapters covering the use of NOACs in particular patient groups, such as those with extremes of weight, athletes, frail individuals and those with cognitive impairment, and the correct dosing of NOACs in conditions other than AF, for example ischaemic heart disease. Doctors can also find the latest advice on the combination of NOACs with antiplatelet drugs in patients with coronary artery disease, the administration of anticoagulants around cardioversion and the use of the recently approved, first NOAC reversal agent, idarucizumab. Finally, Dr. Steffel draws attention to the expansion of the chapter on drug-drug interactions to cover anticancer and antiepileptic drugs, which he calls "a first of its kind."

"The 2018 EHRA Practical Guide is an essential companion for all doctors using NOACs in patients with AF.”

At ESC Congress 2018, delegates can access the 2018 EHRA Practical Guide in an abridged format - via the EHRA Key Messages Mobile app. Those wanting a more traditional format can buy a copy of the Key Messages from the ESC Shop at the ESC Plaza. EHRA Members get a discounted price.


**Don’t miss!**

'The 2018 EHRA Practical Guide for the use of NOACs in patients with atrial fibrillation’

Monday, 08:00 – 08:30; Mirowski – Lecture room.