



Congress Review

Review of the European Society of Cardiology (ESC) Congress 2026

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THE EUROPEAN Society of Cardiology (ESC) Congress 2026 welcomed the global cardiovascular community to Munich, Germany, bringing together clinicians, researchers, HCPs, policymakers, and industry leaders to explore the latest advances in cardiovascular medicine. Held under the spotlight theme of 'Artificial Intelligence', this year's Congress examined how rapidly evolving digital technologies are transforming clinical practice, research, and patient care, while reinforcing the importance of human expertise, collaboration, and clinical judgement. Drawing over 30,000 delegates from across the world, the ESC Congress 2026 provided a platform for scientific exchange, groundbreaking discoveries, and critical discussions that will shape the future of cardiovascular health.

Opening the Inaugural Session, ESC President Thomas Lüscher reflected on the profound transformation that medicine has undergone over the last century, from the introduction of the stethoscope and ECG, to today's era of AI. Framing AI as the next major milestone in cardiovascular medicine, Lüscher argued that the question is no longer whether AI will influence cardiology, but rather how clinicians can responsibly integrate these technologies into everyday practice. Throughout his address, he emphasised that AI should function as a "co-pilot" for healthcare professionals, supporting rather than replacing clinical expertise. While acknowledging the enormous potential of machine learning algorithms to enhance diagnosis, imaging, risk prediction, and personalised treatment,

he also highlighted the challenges of algorithmic bias, cognitive overreliance, and the need for robust validation and regulation.

A central message of this year's congress was that technological progress must remain firmly anchored in patient-centred care. Lüscher outlined a vision in which clinicians are freed from administrative burdens and empowered by advanced digital tools, allowing more time for communication, empathy, and shared decision-making with patients. Echoing a quotation from Hippocrates, that "it is more important to know what sort of person has a disease than to know what sort of disease a person has," Lüscher concluded his opening address by reinforcing that innovation is most impactful when combined with human insight.

Providing an overview of the scientific programme, Congress Programme Committee Chair Tomasz Guzik highlighted the breadth and ambition of the ESC Congress 2026. Building on the congress spotlight theme, the programme explored how AI can be applied throughout cardiovascular medicine, from earlier identification of at-risk patients and enhanced interpretation of ECGs and cardiac imaging, to clinical decision support systems designed to integrate seamlessly into routine practice. However, alongside emerging technologies, the congress remained firmly focused on translating evidence into patient care.

A major highlight of the ESC Congress 2026 was the presentation of four new ESC Clinical Practice Guidelines, covering heart failure, cardiovascular disease and chronic kidney disease, cardiac rehabilitation, and the Fifth Universal Definition of Myocardial Infarction. Guzik emphasised that these documents reflect extensive international collaboration and are designed to support clinicians across diverse healthcare settings. Dedicated task force sessions would enable delegates to examine the recommendations in detail and consider how they can be applied in real-world clinical practice.

The congress also showcased a wealth of late-breaking science. According to Guzik, the ESC Congress 2026 received a record number of trial submissions, with more than 700 studies considered for presentation. Hotline sessions featured pivotal clinical trials investigating novel therapies for hypertrophic obstructive cardiomyopathy, amyloid cardiomyopathy, valvular heart disease, anticoagulation strategies, myocardial infarction management, and innovative cardiovascular devices. These headline studies were complemented by 30 Late-Breaking Science sessions, allowing investigators to present emerging data, registries, and observational analyses while engaging directly with the global cardiovascular community.

Reflecting the increasingly international nature of cardiovascular research, Guzik remarked that nearly 2,000 faculty members from 81 countries contributed to the scientific programme, while abstract and clinical case presenters represented 103 countries worldwide. The congress also received more than 10,000 abstract submissions from 125 countries, according to Guzik, underscoring its position as one of the world's leading cardiovascular scientific

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meetings. Throughout the congress the Research Gateway would host oral abstract presentations, moderated poster sessions, and clinical case discussions, providing an important platform for established investigators and emerging researchers alike.

Beyond the presentation of new evidence, the ESC Congress 2026 emphasised the importance of interdisciplinary collaboration. Scientific tracks explored digital cardiology, AI in clinical practice, cardiometabolic disease, preventive cardiology, multidisciplinary heart team care, and patient-centred medicine. New interactive initiatives, including the ESC Heart Team Challenge, encouraged specialists to work together through realistic clinical scenarios using contemporary devices, software, and simulation technologies. Fireside Chat sessions also returned, offering delegates opportunities to engage directly with leading experts in more informal settings and fostering the conversations that often spark future collaborations.

The Inaugural Session also celebrated exceptional contributions to cardiovascular medicine through the presentation of the prestigious ESC Gold Medals. Lina Badimon, Hospital Santa Creu, Barcelona, Spain, was recognised for her pioneering work in vascular biology, coronary artery disease, inflammation, thrombosis, platelet function, and women's cardiovascular health. John Cleland, University of Glasgow, UK, received recognition for his influential contributions to heart failure research. Gilles Montalescot, Pitié-Salpêtrière Hospital, Paris, France, was honoured for his longstanding impact on interventional cardiology, clinical research, and cardiovascular education.

Additional recognition came through the ESC President's Awards, which honoured individuals whose dedication has significantly strengthened the ESC community. Award recipients included Amelia Meier, Zurich, Switzerland, recognised for her editorial leadership; Petar Seferovic, University of Belgrade, Serbia, acknowledged for his extensive service to ESC and the Heart Failure Association; and David Wood,

University of Galway, Ireland, recognised for his pioneering work evaluating the implementation of cardiovascular prevention guidelines through the EUROASPIRE programme.

Throughout the Inaugural Session, Lüscher repeatedly returned to a central theme: while AI may accelerate scientific discovery and improve clinical decision-making, the future of cardiology will continue to be driven by people. Through collaboration, curiosity, critical thinking, and a commitment to improving patient outcomes, the cardiovascular community remains united in its mission to reduce the global burden of cardiovascular disease. This message was encapsulated in a unique retrospective and forward-looking reflection on ESC's journey since its founding in 1950, reminding delegates that today's innovations are built upon decades of scientific progress and international cooperation.

As delegates gathered in Munich to explore the possibilities of AI-enabled healthcare, the ESC Congress 2026 demonstrated that the future of cardiovascular medicine lies not in technology alone, but in the partnership between innovation and human expertise. By bringing together the latest scientific discoveries, evidence-based guidelines, and global perspectives, the congress once again provided a forum where ideas are translated into action and where the next generation of advances in cardiovascular care begins.

Read on for key insights into this year's Congress, and don't miss our coverage of the ESC Congress 2027, which will be held in Milan, Italy, from 27–30 August 2027, focused on the pertinent theme of 'Prevention'.

AI Mammogram Analysis Could Detect Cardiovascular Disease

AI ANALYSIS of routine mammograms could help identify females with cardiovascular disease, potentially creating an opportunity for cardiovascular assessment alongside established breast cancer screening, according to a study presented at the ESC Congress 2026.¹

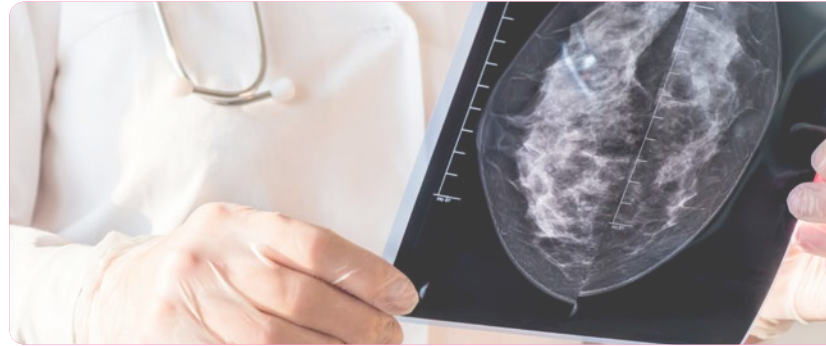
Cardiovascular disease remains the leading cause of death among females, yet detection strategies remain limited. Mammography is already widely used for population-level breast cancer screening and may contain vascular and cardiometabolic information beyond oncological findings. Researchers therefore investigated whether deep learning could identify established cardiovascular conditions directly from routine mammograms.

The retrospective cohort study included 29,921 females who underwent at least one mammography examination between 2011–2025 at a tertiary referral centre, contributing a total of 97,364 examinations. Median age was 54 years, and median follow-up was 7.3 years. Of the participants, 5,485 (18%) had breast cancer.

Clinical diagnoses, electronic medical records, medication prescriptions, procedural and imaging findings, and documented in-hospital measurements were used to establish the presence of hypertension, ischaemic heart disease, and stroke. Researchers then developed a convolutional neural network to predict the presence of each condition directly from mammographic images.

Hypertension was present in 4,787 participants (16%), 748 (2.5%) had ischaemic heart disease, and 755 (2.5%) had experienced a stroke. The AI model achieved an area under the curve (AUC) of 0.79 for hypertension, 0.78 for ischaemic heart disease, and 0.86 for stroke.

Sensitivity analyses produced consistent findings across oncological status, mammographic view, and age. Performance was particularly strong using mediolateral oblique mammography views, reaching an AUC of 0.80 for both hypertension and ischaemic heart disease and 0.88 for stroke.



The findings suggest that routinely collected mammograms may contain clinically relevant information beyond breast cancer detection. As mammography is already embedded within established screening programmes, AI analysis could potentially provide a scalable method of identifying females who may benefit from further cardiovascular assessment without requiring an additional imaging examination.

However, the study was retrospective and evaluated the model's ability to discriminate between females with and without established disease, rather than demonstrating that mammography can prospectively diagnose or predict future cardiovascular disease. Further validation will therefore be needed before the approach could be incorporated into clinical practice.

If confirmed, the findings raise the possibility of mammography becoming a dual-purpose screening platform, using an existing healthcare interaction to support earlier recognition of cardiovascular disease in females.



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Statins Linked to Lower Dementia Risk in People with Type 2 Diabetes

EARLY STATIN initiation in people with Type 2 diabetes was associated with a lower risk of dementia over 10 years compared with no statin initiation, according to a new Danish observational study presented at the ESC Congress 2026.²

Currently, there are no effective treatments for dementia, highlighting the increasingly important role of prevention in reducing the burden of this syndrome. Low-density lipoprotein cholesterol (LDL-C) is one of a number of risk factors associated with cognitive decline and dementia. This is especially noteworthy because individuals with Type 2 diabetes often have elevated levels of LDL-C.

The authors tested the hypothesis that early initiation of statin treatment following Type 2 diabetes diagnosis is associated with lower risk of all-cause dementia than delayed or no initiation.

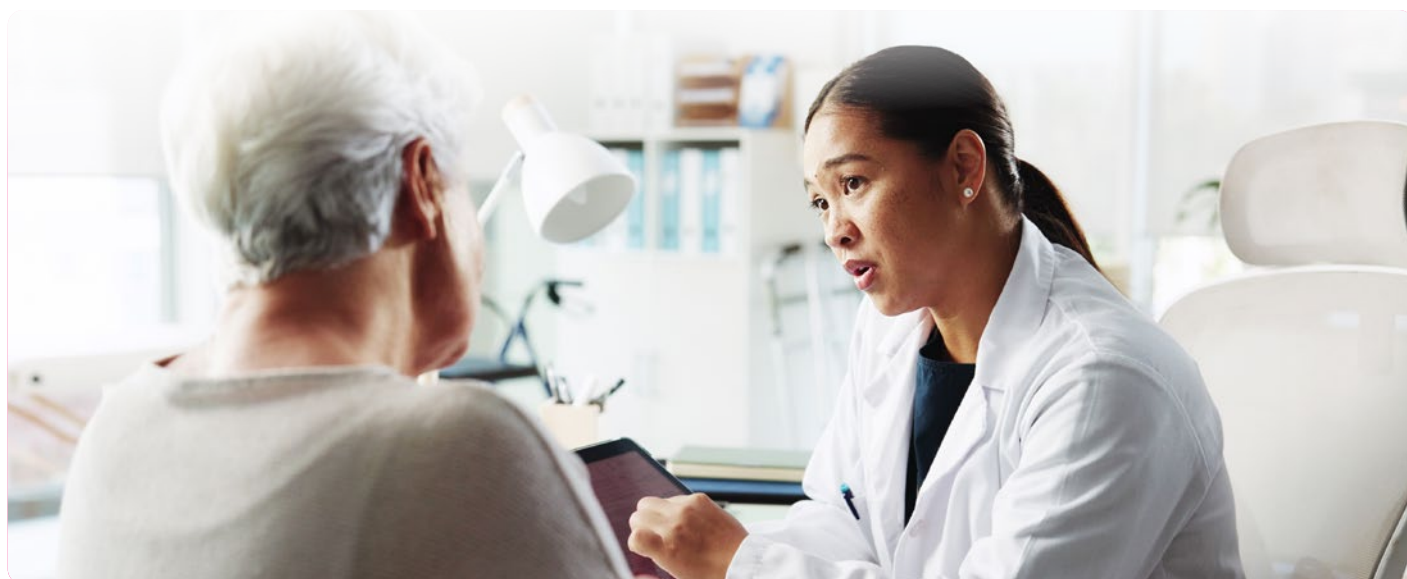
Researchers identified 132,585 statin-naïve individuals from Danish registers who developed Type 2 diabetes from 2006–2019, with follow-up until dementia, death, emigration, or 31st December, 2021. The study used a clone-censor-weight design to compare three treatment strategies and their association with dementia incidence: no statin initiation within 5 years after diagnosis, early statin initiation within 1

year, and late statin initiation 1–5 years after diagnosis. The primary outcome was 10-year risk of all-cause dementia, with death treated as a competing risk.

The study found that 2.7% of the study population developed dementia during a median follow-up of 7.1 years. Both early and late statin treatment were associated with a lower risk of dementia over 10 years compared with no statin initiation, with a 15% (95% CI: 9–21%) and 10% (95% CI: 3–15%) lower relative risk, respectively. Absolute risk difference for dementia in early statin initiation was 0.59% (0.34–0.86%) lower, and in late statin treatment 0.38% (0.12–0.61%) lower.

To conclude, statin therapy in statin-naïve individuals developing Type 2 diabetes was associated with lower relative and absolute risk of dementia. The most prominent reduction in dementia risk occurred in those with early statin initiation. Given that this was an observational study, further research will be required to confirm these findings.

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AI Facial Video Analysis Shows Promise for Detecting Hypertension and Diabetes

AI ANALYSIS of a short facial video could help identify individuals with undiagnosed hypertension and diabetes, offering a potential route to large-scale, contactless screening in everyday settings, findings presented at the ESC Congress 2026 suggest.³

Machine-learning algorithms may be able to detect key cardiovascular risk factors from videos lasting as little as 5 seconds.

Hypertension and diabetes are among the leading modifiable risk factors for cardiovascular disease, yet many affected individuals remain undiagnosed. Current screening approaches typically require dedicated healthcare appointments, blood pressure cuffs, blood tests, or wearable devices, all of which can limit population-level uptake.

Researchers from the University of Tokyo and Institute of Science Tokyo, Japan, therefore investigated whether AI-driven analysis of facial videos could provide a rapid, non-invasive alternative.

The prospective single-centre study included 285 participants comprising both diagnosed patients and healthy volunteers. Each underwent short, high-speed spectroscopic video recordings of the face and hands. The AI algorithm extracted information on pulse-wave dynamics, skin blood-flow patterns, and spectral characteristics of the skin. These data were then compared with conventional assessments for hypertension and diabetes.

For hypertension detection, the algorithm achieved 95.0% accuracy using a 30-second recording, with 100.0% sensitivity for normal blood pressure and 89.2% sensitivity for hypertension. Notably, performance remained high when recording time was reduced to just 5 seconds, with an accuracy of 90.3%.

Similarly strong results were reported for diabetes detection. Using blood-flow pattern analysis, the AI system achieved an accuracy of 88.2% from 30-second recordings and 81.2% from videos lasting only 5 seconds. The corresponding models demonstrated excellent discriminative ability, with reported Receiver

Operating Characteristic–area under the curve values of 0.97 and 0.98, respectively.

Researchers also evaluated whether blood pressure could be estimated directly from facial video footage without the need for a cuff. Using a combination of machine-learning models, the system achieved a mean absolute percentage error of 9.7% and a correlation coefficient of 0.968, while mean systolic blood pressure error remained within accepted accuracy limits, although variability exceeded some validation criteria.

The findings suggest that facial video analysis may provide a scalable and convenient method for identifying individuals at risk of cardiovascular disease. Because the technology requires no physical contact, blood sampling, or dedicated clinic visit, it could potentially be incorporated into a wide range of everyday environments. However, the researchers emphasised that larger, multicentre studies will be required to validate the approach across more diverse populations before it can be adopted in routine clinical practice.

If confirmed, the technology could expand access to cardiovascular risk screening and help identify people with previously undiagnosed hypertension or diabetes, enabling earlier intervention and disease prevention.



Medication Adherence Determines Cardiovascular Benefit of Antihypertensive Therapy

NEW DATA presented at the ESC Congress 2026 has shown that the blood pressure and cardiovascular benefits of antihypertensive therapy are strongly dependent on medication adherence, with little or no protective effect observed among patients taking less than 80% of their prescribed treatment.⁴

Suboptimal adherence to antihypertensive therapy is common and may attenuate its clinical benefit, yet randomised evidence quantifying this effect has remained limited. This analysis was designed to determine whether, and to what extent, adherence modifies the blood pressure and cardiovascular effects of antihypertensive therapy within randomised trials.

Investigators conducted an individual participant data meta-analysis using data from 115,389 participants across 12 RCTs, of whom 91,339 from nine trials had longitudinal adherence data available. Each trial compared an antihypertensive regimen against a comparator (placebo or a less-intensive regimen). Adherence was harmonised into a binary variable, defined as taking at least 80% (higher adherence) or less than 80% (lower adherence) of assigned treatment, updated at each follow-up visit. Treatment effects within adherence strata were estimated using linear mixed-effects models for systolic blood pressure (SBP) and trial-stratified Cox models for clinical events, with treatment-by-adherence interaction terms applied to test effect modification. Median follow-up was 4.7 years.

Adherence declined over time in both groups. In the intervention group, mean adherence fell from 88% at 1 year to 80% at 5 years; in the comparator group, it fell from 87% to 77% over the same period. Over follow-up, 15,460 major cardiovascular events and 9,591 deaths were recorded. The intervention reduced SBP by -3.0 mmHg (95% CI: -3.3 – -2.7) in the lower-adherence group versus -5.2 mmHg (95% CI: -5.4 – -5.0) in the higher-adherence group (p for interaction <0.001). Effects on major cardiovascular disease also differed by group (p for interaction $=0.04$). Among participants

with higher adherence, the intervention reduced the risk of major cardiovascular disease (hazard ratio: 0.89; 95% CI: 0.86–0.92), whereas no significant benefit was observed among those with lower adherence (hazard ratio 1.01; 95% CI: 0.92–1.10).

“Adherence assessment and support should occupy a more prominent role in routine hypertension care”

These findings have reinforced that adherence assessment and support should occupy a more prominent role in routine hypertension care. The authors have recommended strategies such as simplifying regimens, adopting single-pill combinations, and using longer-acting agents to reduce the impact of missed doses. Given that patients with lower adherence derived minimal cardiovascular benefit despite randomisation to active treatment, adherence should be considered a modifiable factor central to realising the full benefit of blood pressure-lowering therapy.



High Xylitol Levels Linked to Increased Cardiovascular Risk

HIGH CIRCULATING levels of the artificial sweetener xylitol were associated with an increased risk of major adverse cardiovascular events in two large population-based cohorts, according to research presented at the ESC Congress 2026. The findings raise further questions about the long-term cardiovascular safety of artificial sweeteners, which are widely used as alternatives to dietary sugar.⁵

Xylitol is a sugar alcohol that occurs naturally in the body and is commonly added to foods, beverages, and oral care products. While regulatory agencies generally regard xylitol as safe, previous research has suggested that it may enhance platelet clot formation and could be associated with increased cardiovascular risk in high-risk populations. Researchers sought to determine whether a similar association exists in the general population.

The study analysed metabolomic data from 17,710 participants enrolled in two prospective cohort studies: the Canadian Longitudinal Study on Aging (CLSA; N=7,651) and the European Prospective Investigation into Cancer (EPIC)-Norfolk cohort (N=10,059). Participants had a mean age of 60.9 years and were followed for up to 6 years in CLSA and 30 years in EPIC-Norfolk. During follow-up, 2,950 cardiovascular events occurred in the CLSA cohort and 5,670 events occurred in EPIC-Norfolk cohort.

After adjustment for established cardiovascular risk factors, individuals with xylitol concentrations in the highest quartile had a significantly greater risk of major adverse cardiac events, defined as myocardial infarction, stroke, or death, compared with those in the lowest quartile. In the CLSA cohort, the highest xylitol levels were associated with a 47% increase in cardiovascular event risk (adjusted hazard ratio: 1.47; 95% CI: 1.15–1.86; $p=0.002$). In the EPIC-Norfolk cohort, the corresponding increase was 18% (adjusted hazard ratio: 1.18; 95% CI: 1.09–1.27; $p<0.0001$).

Researchers also observed a dose-dependent relationship between circulating

“The findings suggest that elevated xylitol levels may represent a marker of residual cardiovascular risk in primary prevention populations”



In the CLSA cohort, the highest xylitol levels were associated with a 47% increase in cardiovascular event risk

xylitol concentrations and cardiovascular outcomes, with progressively higher event rates seen at increasing blood levels of the sweetener. Importantly, the association remained consistent across multiple subgroups and appeared independent of factors such as age, sex, BMI, hypertension, diabetes, and lipid levels.

The findings suggest that elevated xylitol levels may represent a marker of residual cardiovascular risk in primary prevention populations. However, as this was an observational analysis, the study cannot establish causality. Further research will be needed to determine whether xylitol directly contributes to cardiovascular events and to clarify the safety of increasing exposure to artificial sweeteners in the general population.



Implantable Cardioverter-Defibrillators May Benefit Younger Patients

IMPLANTABLE cardioverter-defibrillators (ICD) may reduce the risk of sudden cardiac death in younger patients with mild-to-moderate left ventricular dysfunction and myocardial scarring, according to results from the CMR GUIDE trial presented at the ESC Congress 2026.⁶

Sudden cardiac death is a serious complication of heart failure and can occur even in patients whose left ventricular ejection fraction (LVEF) is only mildly to moderately reduced. ICDs continuously monitor the heart rhythm and can deliver electrical therapy to correct life-threatening abnormalities.

At present, ICDs are recommended for primary prevention in selected patients with heart failure and substantially reduced LVEF of 35% or less despite optimised medical therapy. However, many sudden cardiac deaths occur in patients with LVEF above this threshold, who are not currently eligible for an ICD.

Led by Principal Investigator Joseph Selvanayagam, Flinders University, Flinders Medical Centre, Adelaide, Australia, researchers therefore investigated whether an ICD could improve outcomes in patients with LVEF 36–50% with evidence of myocardial scarring, identified using cardiovascular magnetic resonance (CMR). Myocardial scarring is associated with an increased risk of ventricular arrhythmias, and sudden cardiac death and may provide additional information beyond LVEF when assessing arrhythmic risk.

The CMR GUIDE trial was conducted at 18 centres in Australia, Germany, and the UK, and included 353 patients with ischaemic or non-ischaemic cardiomyopathy, an LVEF of 36–50% despite optimal heart failure therapy, and myocardial scarring confirmed by CMR. Participants were randomised 1:1 to receive an ICD or an implantable loop recorder (ILR), which continuously monitors heart rhythm but does not provide treatment for life-threatening arrhythmias. Most participants were aged over 70 years (68%), while 18% were women.

The primary endpoint of sudden cardiac death or haemodynamically significant ventricular arrhythmias, defined as ventricular arrhythmias causing loss of consciousness or a significant fall in blood pressure, did not differ significantly between the two groups. The primary endpoint occurred in 7.8% of patients assigned to ICDs compared with 9.2% of those assigned to ILRs (hazard ratio: 0.76; 95% CI: 0.37–1.58).

However, in a prespecified subgroup analysis, ICD implantation was associated with a 72% reduction in the primary endpoint among patients younger than 70 years, whereas no apparent benefit was observed in patients aged 70 years or older. The findings suggest that age may be an important factor when considering the potential benefits of ICD implantation in patients with mild-to-moderate left ventricular dysfunction and myocardial scarring.

The secondary endpoint of sudden cardiac death alone was also significantly reduced among patients receiving an ICD compared with those assigned to an ILR, occurring in 1.7% and 5.8% of patients, respectively (hazard ratio: 0.26; 95% CI: 0.07–0.95).

Overall, the findings indicate that ICD implantation should not be routinely recommended for all patients with LVEF of 36–50% and myocardial scarring, as the trial's primary endpoint was neutral. However, the apparent reduction in arrhythmic events among younger patients suggests that ICDs may have a role in selected individuals and that age, myocardial scarring, and other markers of arrhythmic risk could be considered alongside LVEF when assessing potential benefit. Further research in larger populations will be needed to determine which patients are most likely to benefit from ICD therapy.



Heat-Related Cardiovascular Deaths Projected to Rise by 2050

HEAT-ATTRIBUTABLE cardiovascular deaths in West and Central Africa could nearly quadruple by 2050, according to an analysis presented at the ESC Congress 2026.⁷

The study estimated that 12,905 cardiovascular disease (CVD) deaths annually were attributable to heat across the region at baseline, equivalent to 1.9 deaths per 100,000 people. By 2050, the estimated burden increased to 50,809 deaths per year under a moderate-emissions scenario and 53,698 under a high-emissions scenario, corresponding to 7.4 and 7.8 deaths per 100,000, respectively.

West and Central Sub-Saharan Africa is exposed to multiple climate-related risks, including extreme temperatures, limited resilience, and constrained capacity to adapt. The region is home to more than 500 million people across diverse climate zones, with population growth among the fastest globally. Extreme heat is also a potentially modifiable risk factor for CVD, although its contribution to mortality in the region remains under-recognised.

The researchers conducted a grid-based analysis covering 23 countries and 17,334 grid cells at 0.25° resolution. Daily mean temperatures for 2016–2023 were obtained from ERA5-Land reanalysis, while projections for 2040 and 2050 were based on a five-climate-model Coupled Model Intercomparison Project Phase 6 ensemble under Shared Socioeconomic Pathway 2-4.5 and Shared Socioeconomic Pathway

5-8.5. Climate-zone-specific relative risks from published exposure-response studies were used to calculate population-attributable fractions. CVD mortality data from the Global Burden of Disease 2023 were spatially disaggregated using WorldPop population data, with projected population growth incorporated into future estimates. Monte Carlo simulations were used to account for uncertainty in relative-risk and mortality estimates.

At baseline, Guinea and Chad had the highest estimated heat-attributable CVD mortality rates. By 2050, Equatorial Guinea and Gabon had the largest relative increases under the high-emissions scenario, at 902% and 865%, respectively. Cameroon and Ghana had the highest projected absolute rates, at 11.2 and 11.1 deaths per 100,000.

“**At baseline, Guinea and Chad had the highest estimated heat-attributable CVD mortality rates**”

The analysis is based on modelled temperature exposure, relative-risk estimates and projected population and mortality data, meaning the estimates are subject to uncertainty. The findings nevertheless indicate a substantial future heat-related CVD burden and support consideration of heat action plans, climate adaptation, and targeted CVD risk-reduction measures in the region.



Intensive Blood Pressure Control Linked to Lower Dementia Risk

INTENSIVE blood pressure management delivered through community healthcare providers reduced the risk of dementia over 7 years in adults with hypertension, according to findings from the China Rural Hypertension Control Program (CRHCP) presented at the ESC Congress 2026. The results suggest that structured blood pressure control could play an important role in dementia prevention at a population level.⁸

Dementia is an increasing global health challenge, with case numbers projected to rise substantially in the coming decades. While hypertension is a recognised modifiable risk factor for dementia, evidence demonstrating that long-term blood pressure reduction can prevent dementia in large populations has been limited. Researchers therefore evaluated whether an intensive, community-based blood pressure intervention could influence dementia risk.

The cluster-randomised trial enrolled 33,995 adults aged ≥ 40 years from 326 rural villages in China. Participants had elevated blood pressure and were assigned either to an intensive intervention led by trained non-physician community healthcare providers or to usual care. The intervention involved initiating and adjusting antihypertensive therapy according to a simple stepped-care protocol, with targets of systolic blood pressure < 130 mmHg and diastolic blood pressure < 80 mmHg. The active intervention lasted 4 years and was followed by a further 3 years of observation.

Participants had a mean age of 63 years, and 61% were female. After 7 years, the intervention group achieved substantially greater reductions in blood pressure than

those receiving usual care, with systolic blood pressure falling by 17.6 mmHg compared with 2.4 mmHg in the control group.

Importantly, intensive blood pressure control was associated with a significant reduction in dementia risk. The incidence of dementia was 8.85% in the intervention group versus 10.55% in the usual-care group, representing a 15% lower risk of dementia (adjusted risk ratio: 0.85; 95% CI: 0.78–0.91; $p < 0.001$). The intervention also reduced the risk of cognitive impairment without dementia by 13% compared with usual care.

The safety profile was favourable, with serious adverse events reported less frequently among participants receiving the intervention than among those receiving standard care (47.15% versus 49.78%).

The researchers concluded that this scalable, community-delivered approach not only achieved sustained blood pressure reductions, but also lowered the risk of dementia over the long term. If implemented more widely, structured blood pressure management programmes led by non-physician healthcare providers could offer an accessible strategy to help reduce the growing global burden of dementia.

“This scalable, community-delivered approach not only achieved sustained blood pressure reductions, but also lowered the risk of dementia”

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