



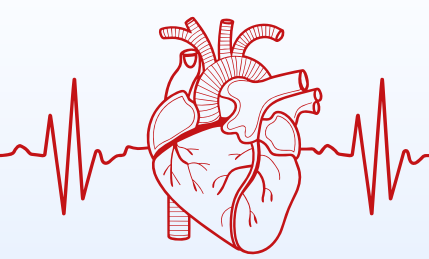
**Day 2  
UPDATES**



**Munich,  
Germany**



**28<sup>TH</sup> - 31<sup>ST</sup>  
Aug, 2026**

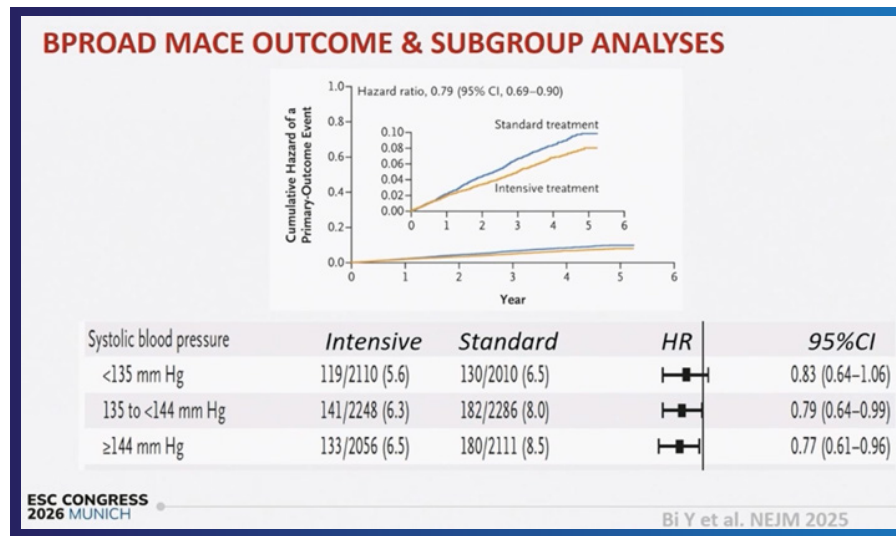


**ESC 2026**

**EUROPEAN SOCIETY OF CARDIOLOGY**

**Our Global Marketing Arms**





This session examined the evolving evidence supporting earlier and more individualized approaches to blood pressure (BP) management, with a focus on cardiovascular (CV) risk reduction across different patient populations. This session was presented at the European Society of Cardiology (ESC) Congress 2026, held from 28th to 31st August 2026 in Munich, Germany.

The presented evidence demonstrates a continuous relationship between increasing BP and cardiovascular risk, extending even into the traditionally normal systolic BP range. Early observational, genetic, and population-based studies consistently showed progressively increasing CV risk with both systolic and diastolic BP, without a clear lower threshold. Guideline recommendations have consequently shifted toward lower treatment thresholds while increasingly emphasizing overall CV risk rather than BP values alone. The SPRINT trial, involving high-risk adults aged  $\geq 50$  years, showed that intensive BP lowering reduced the primary composite cardiovascular outcome by approximately 25% compared with standard treatment. The ESPRIT trial evaluated intensive versus standard BP targets in patients with elevated CV risk, while the BPROAD trial, involving patients with diabetes, demonstrated a significant reduction in major cardiovascular outcomes with intensive treatment (HR 0.79; 95% CI 0.69–0.90), with benefits observed across baseline systolic BP subgroups. Other major trials, including STEP in older adults and RESPECT in patients with stroke, further support individualized BP targets across different populations.

Meta-analyses indicate that the benefits of BP lowering are broadly proportional to treatment intensity and are not substantially modified by baseline BP level or the presence of established CVD. However, evidence remains uncertain for younger individuals and those at low-to-moderate CV risk, particularly with BP levels of 130–139/80–89 mmHg. Future management may increasingly incorporate AI-based precision medicine for continuous risk assessment and optimal timing of therapy.

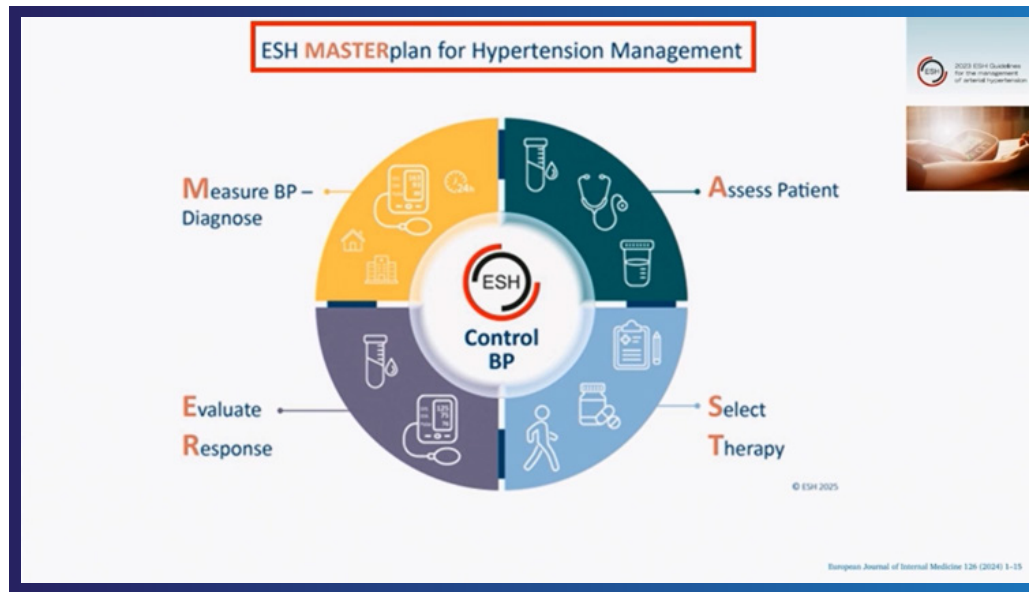
## Conclusion

**BP management should move beyond rigid thresholds toward accurate measurement and individualized assessment of global CV risk, while further evidence is needed to define the benefits of early pharmacotherapy in younger and lower-risk populations.**

# Pragmatic hypertension management in an era of ever-changing definitions, targets, and guidelines

How to diagnose hypertension and hypertension-mediated organ damage?

**Januszewicz A.**



This session was presented, at the European Society of Cardiology (ESC) Congress 2026, held from 28th to 31st August 2026 in Munich, Germany. The session highlighted a comprehensive approach to diagnosing hypertension (HTN), emphasizing the importance of out-of-office blood pressure measurement, including ambulatory blood pressure monitoring (ABPM) and home blood pressure monitoring (HBPM), to improve cardiovascular (CV) risk prediction and identify new HTN phenotypes.

Accurate diagnosis should include assessment of overall CV risk and exclusion of secondary hypertension, with investigations guided by the patient's age, clinical history, physical examination findings, and laboratory results. Basic assessment includes evaluation for hypertension-mediated organ damage (HMOD) through blood and urine tests, while extended assessment is recommended for patients with stage 2–3 HTN, high or very high CV risk, resistant HTN, malignant HTN, or pre-eclampsia.

HMOD assessment may involve echocardiography, coronary calcium scoring, carotid or femoral ultrasound, pulse wave velocity, ankle-brachial index, abdominal ultrasound, fundoscopy, and evaluation of renal function. The session also addressed sex differences in arterial dysfunction and complications, emphasizing the influence of ageing, menopause, arterial stiffness, and associated cardiac, renal, and cerebrovascular damage.

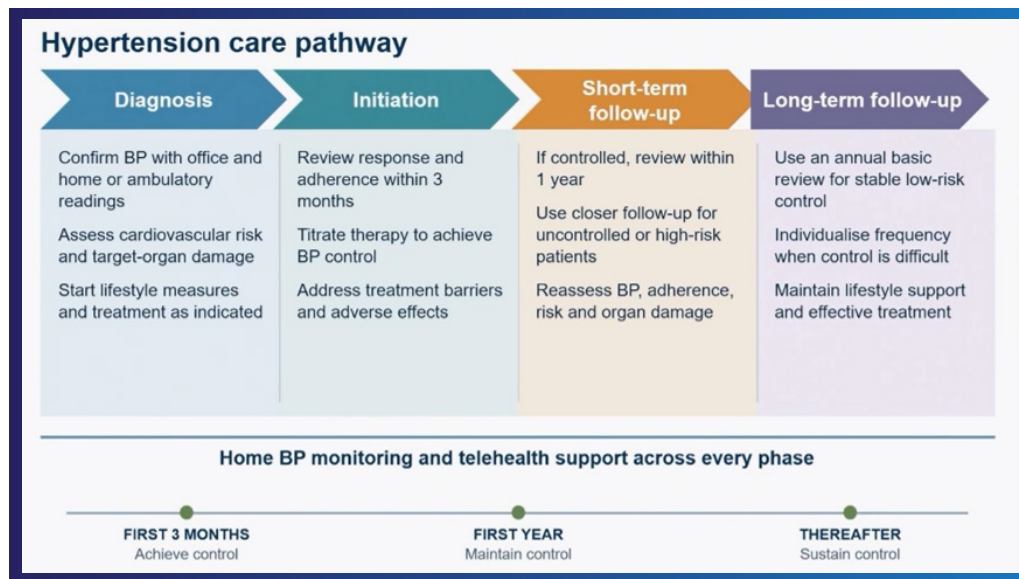
## Conclusion

**Effective HTN diagnosis requires accurate BP measurement, individualized CV risk assessment, systematic exclusion of secondary causes, and a tailored evaluation for HMOD to enable early intervention and improve long-term outcomes.**

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# How Fast and Low Should We Go in Blood Pressure Lowering?

A. Heagerty



The optimal pace and intensity of blood pressure (BP) lowering remain important considerations in hypertension management, with growing evidence supporting earlier treatment intensification and achievement of recommended BP targets. This session reviewed evidence informing how rapidly BP control should be achieved, when treatment should be intensified, and how low systolic BP (SBP) should be targeted. This session was presented by Anthony Heagerty at the European Society of Cardiology (ESC) Congress 2026, held from 28th to 31st August 2026 in Munich, Germany.

Evidence from the VALUE trial demonstrated that achieving BP control within 6 months was associated with greater cardiovascular protection, while BP response during the first month predicted subsequent events and survival. Observational data further suggested that cardiovascular risk was lowest when treatment intensification occurred around an SBP threshold of 140 mmHg, with progressively greater risk when action was delayed beyond 150 mmHg. Longer intervals between intensification and follow-up were also associated with increased cardiovascular risk.

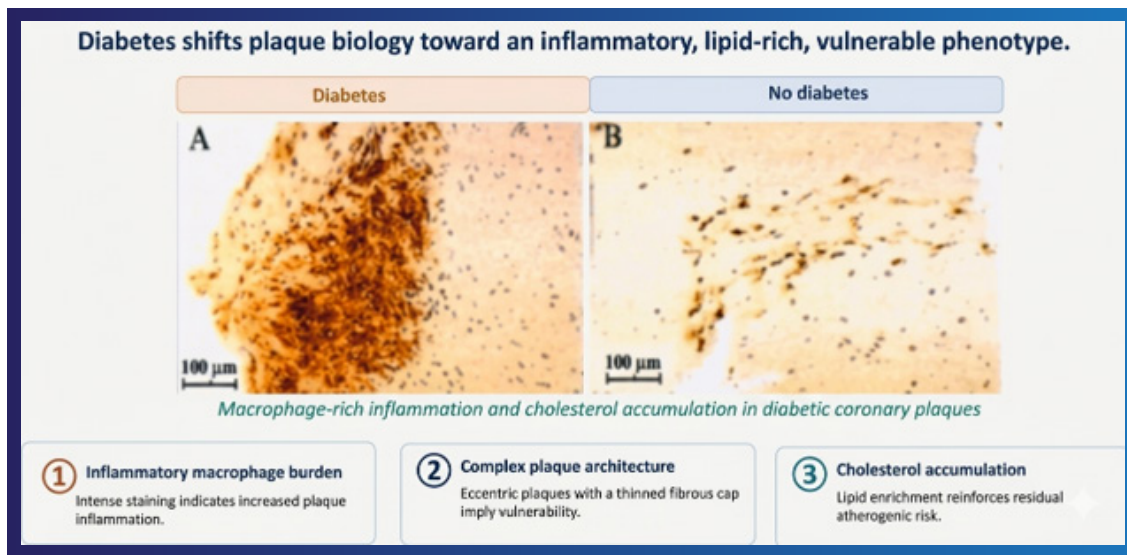
Evidence from randomized trials and pooled analyses supported more intensive SBP lowering, with an overall reduction in cardiovascular risk for targets below 130 mmHg compared with less intensive strategies. Current recommendations emphasize targeting an SBP of 120–129 mmHg in most eligible patients when treatment is tolerated, while individualizing targets according to age, frailty, comorbidities, and treatment response.

## Conclusion

**Overall, hypertension management should move beyond simply initiating therapy toward a structured treatment arc of early action, rapid assessment, timely intensification, and sustained follow-up. Achieving BP control promptly while individualizing the intensity of lowering may maximize cardiovascular protection without compromising treatment tolerability.**

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Comorbidities may alter the lipid profile, atherogenic burden and overall cardiovascular risk, and LDL-C alone may not fully capture risk when multiple conditions are present. This session reviewed how obesity, diabetes, HIV, obstructive sleep apnoea (OSA), chronic kidney disease (CKD), immune-mediated inflammatory disease and psychiatric disorders can reshape lipid metabolism and influence risk assessment. The session was presented by Meral Kayikcioglu (Türkiye) at the European Society of Cardiology (ESC) Congress 2026, held from 28th to 31st August 2026 in Munich, Germany.

Obesity and insulin resistance are characterised by atherogenic dyslipidaemia, with increased triglycerides (TG), reduced HDL-C and small dense LDL, driven by increased hepatic VLDL production and impaired lipoprotein lipase activity. Weight loss of 10–20% or more reduces TG-rich lipoproteins, although effects on LDL-C are generally small and inconsistent. In diabetes, especially with nephropathy, the lipid profile shifts toward TG-rich, HDL-low and more atherogenic particles. Diabetes also promotes inflammatory, lipid-rich and vulnerable coronary plaques. Remnant cholesterol and TG-rich lipoproteins may contribute to low-grade inflammation.

HIV increases ASCVD risk by approximately two-fold through chronic inflammation, immune activation and ART-related metabolic changes. In the REPRIEVE trial, 7,769 people with HIV at low-to-moderate predicted cardiovascular risk receiving pitavastatin 4 mg had a 35% reduction in MACE over a median 5.1 years (HR 0.65; NNT 106 over 5 years).

In OSA, intermittent hypoxia disrupts lipid handling, producing increased triglycerides, reduced HDL-C and small dense LDL. In non-diabetic, non-obese patients, OSA was studied in 86 patients versus 55 controls, with lipid abnormalities increasing with OSA severity in women. CKD promotes a remnant-rich, highly atherogenic milieu through reduced LPL activity, impaired HDL function and increased LDL oxidation.

## Conclusion

**Comorbidities are not simply risk modifiers but may actively drive dyslipidaemia and increase absolute cardiovascular risk. Lipid management should therefore incorporate comorbidity burden, risk enhancers, treatment interactions and individual clinical context rather than relying on LDL-C alone.**

### Treatment must reflect cardiac and neurological phenotype

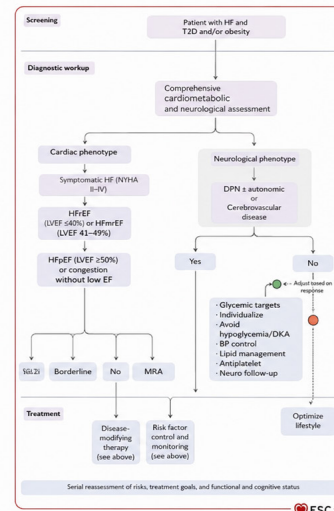
Before selecting therapy, assess:

**Cardiac severity**  
NYHA class, congestion, rhythm and conduction disease, renal function

**Neurological phenotype**  
Polyneuropathy, autonomic symptoms, functional status

**Patient priorities**  
Treatment route, monitoring burden, comorbidities, access, and preferences

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Heart failure (HF) may present with nonspecific findings, making systematic etiologic assessment essential for identifying potentially treatable causes. This case demonstrates how clinical suspicion, cardiac imaging, and extracardiac red flags can guide deep phenotyping and establish an underlying HF etiology. This session was presented by Simpson M at the European Society of Cardiology (ESC) Congress 2026, held from 28th to 31st August 2026 in Munich, Germany.

A patient with hypertension, atrial flutter, and complete heart block requiring VVIR pacing 2 years ago, with bilateral carpal tunnel syndrome and peripheral neuropathy, underwent evaluation for HF. Initial assessment showed elevated NT-proBNP (5699 pg/mL), impaired renal function (eGFR 41 mL/min/1.73 m<sup>2</sup>), and echocardiographic findings including increased LV wall thickness, preserved LVEF of 60–65%, and valvular abnormalities.

The combination of HFpEF, increased LV wall thickness, conduction disease, bilateral carpal tunnel syndrome, and polyneuropathy raised clinical suspicion for cardiac amyloidosis. The diagnostic pathway emphasized exclusion of light-chain (AL) amyloidosis using serum and urine immunofixation and serum free light-chain testing, followed by bone scintigraphy for transthyretin cardiac amyloidosis. Following confirmation of ATTR-CM, TTR genetic testing was recommended to distinguish hereditary from wild-type disease and guide subsequent management.

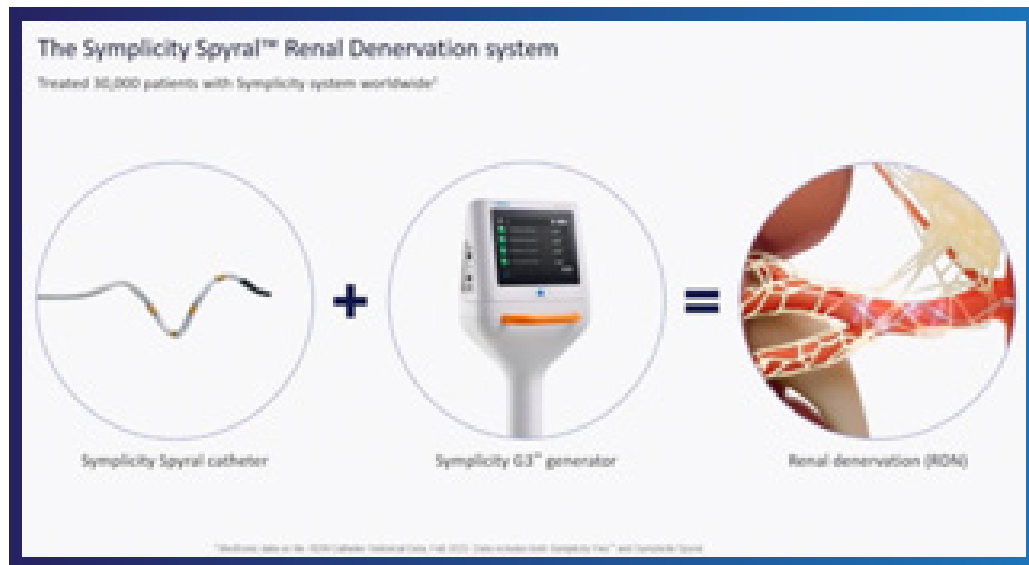
## Conclusion

This case highlights the value of deep phenotyping in unexplained HF, where extracardiac red flags can provide critical diagnostic clues. Early recognition of cardiac amyloidosis and systematic exclusion of AL disease can enable accurate ATTR-CM diagnosis, appropriate disease classification, and more targeted management.

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# Closing the gap in blood pressure treatment: what options are available today?

**F. Mahfoud**



Patient non-adherence remains an important barrier to achieving adequate blood pressure (BP) control despite the availability of antihypertensive therapies. Evidence presented showed that approximately 44% of patients were partially non-adherent to prescribed medical treatment, while 17% were totally non-adherent, highlighting an important gap in hypertension management. This presentation highlighted the challenges associated with achieving BP control with existing treatment strategies and discussed renal denervation (RDN) as a minimally invasive interventional option for patients with uncontrolled or resistant hypertension. The findings were presented at ESC Congress 2026, held in Munich, Germany, from August 28–31, 2026.

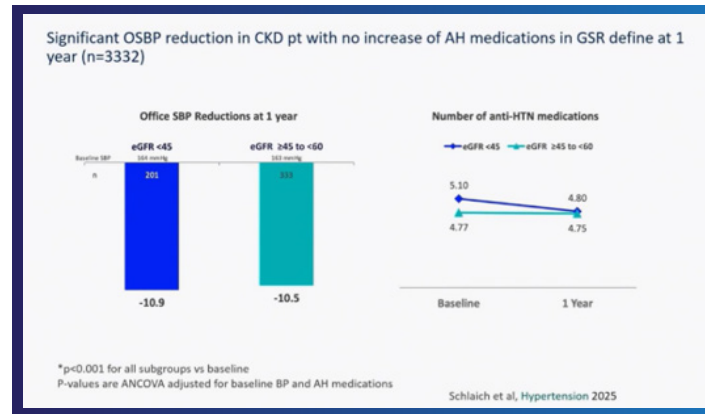
The presentation reviewed patient adherence to antihypertensive treatment and the role of RDN as an interventional approach. RDN uses precisely controlled and targeted radiofrequency (RF) energy delivered to the renal nerves, with no permanent implant left behind. The procedure aims to disrupt overactive sympathetic signalling between the kidneys and brain, thereby reducing BP. The Symplcity Spyral™ RDN system, comprising the Symplcity Spyral catheter and Symplcity G3™ generator, was presented as an RDN system used worldwide.

Non-adherence across reported studies demonstrated substantial difficulty in maintaining antihypertensive treatment strategies, with 44% of patients being partially non-adherent and 17% totally non-adherent. The Symplcity system had been used to treat 30,000 patients worldwide. European guidelines recommend RDN as a safe and effective treatment option for selected patients with uncontrolled and resistant hypertension. Patient selection criteria presented included patients with uncontrolled hypertension and eGFR >40 mL/min/1.73 m<sup>2</sup> receiving fewer than 3 antihypertensive drugs with increased cardiovascular risk, and patients with resistant hypertension with eGFR >40 mL/min/1.73 m<sup>2</sup> who remained uncontrolled despite a 3-drug combination. RDN should be performed in experienced RDN centres following multidisciplinary assessment, with patient selection undertaken through shared decision-making that considers patient preference.

## Conclusion

The findings indicated that patient non-adherence remains an important barrier to achieving BP control despite available pharmacological treatments. RDN provides a minimally invasive, implant-free interventional approach that targets renal sympathetic signalling and may offer an additional treatment option for appropriately selected patients with uncontrolled or resistant hypertension. Appropriate patient selection, multidisciplinary assessment and shared decision-making are important components of RDN implementation.

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Patient selection is central to the appropriate use of renal denervation (RDN) in uncontrolled hypertension (uHTN), which remains an important clinical challenge associated with increased cardiovascular, renal and metabolic risk. The EnligHTN study, conducted between 2018–2023 across multiple countries in approximately 340,000 adults with hypertension (HTN) receiving  $\geq 2$  antihypertensive treatments, evaluated controlled and uncontrolled hypertension. Controlled HTN (cHTN) was defined as BP below target and uHTN as BP at or above target, with targets of 130/80 mmHg in the United States and 140/90 mmHg in all other countries. This presentation highlighted appropriate patient selection and treatment considerations for RDN in uncontrolled or resistant hypertension. The findings were presented at ESC Congress 2026, held in Munich, Germany, from August 28–31, 2026.

Patient selection criteria and evidence supporting RDN were reviewed. European guidelines recommend RDN as a safe and effective treatment option in selected patients with uncontrolled and resistant hypertension. RDN was considered in patients with uncontrolled hypertension and  $\text{eGFR} > 40 \text{ mL/min/1.73 m}^2$  receiving fewer than 3 antihypertensive drugs with increased cardiovascular risk, and in patients with resistant hypertension with  $\text{eGFR} > 40 \text{ mL/min/1.73 m}^2$  who had uncontrolled BP despite a 3-drug combination. RDN should be performed in experienced RDN centres following multidisciplinary assessment, with patient selection based on shared decision-making and patient preference.

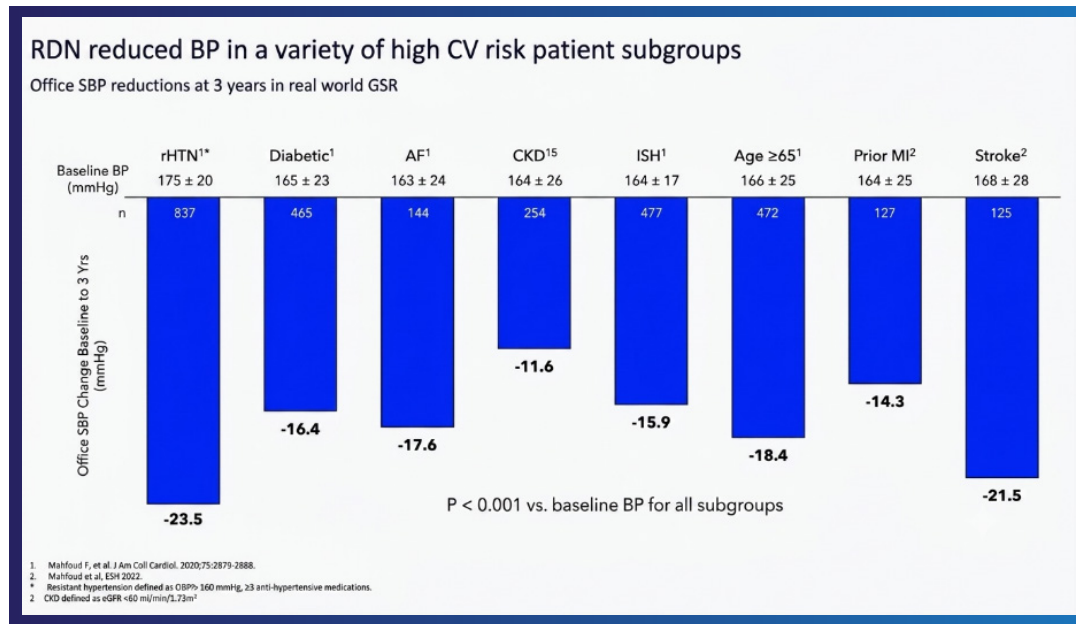
Across countries, the proportion of patients with cHTN versus uHTN was 25.2% vs 74.8% in the UK, 30.6% vs 69.4% in the United States, 46.8% vs 53.2% in Germany, 52.7% vs 47.3% in Spain and 67.5% vs 32.5% in Israel. Obesity prevalence ranged from 20–63% in patients with uHTN and 18–53% in those with cHTN. Compared with cHTN, uHTN was associated with higher rates of transient ischaemic attack, stroke, myocardial infarction, end-stage renal disease and type 2 diabetes. In a pooled analysis of Symplicity RDN patients, 87.6% (N=428) experienced clinical benefit at 3 years, defined as at least one of the following: office systolic BP reduction  $\geq 10$  mmHg, 24-h ambulatory systolic BP reduction  $\geq 5$  mmHg, and/or reduction of  $\geq 1$  antihypertensive medication. In GSR DEFINE at 1 year, patients with CKD showed significant office systolic BP reductions without an increase in antihypertensive medications. Among patients with  $\text{eGFR} < 45 \text{ mL/min/1.73 m}^2$  (n=201), baseline office SBP was 164 mmHg and the reduction was  $-10.9$  mmHg; among those with  $\text{eGFR} \geq 45$  to  $< 60 \text{ mL/min/1.73 m}^2$  (n=333), baseline office SBP was 163 mmHg and the reduction was  $-10.5$  mmHg (p<0.001 for all subgroups vs baseline). Renal function remained stable at 1 year, with  $\text{eGFR} < 45 \text{ mL/min/1.73 m}^2$  changing from 32.4 at baseline to 33.4 at 1 year,  $\text{eGFR} \geq 45$  to  $< 60 \text{ mL/min/1.73 m}^2$  from 53.6 to 53.1, and  $\text{eGFR} \geq 60 \text{ mL/min/1.73 m}^2$  from 87.3 to 80.9  $\text{mL/min/1.73 m}^2$ .

## Conclusion

The findings indicated that RDN may provide an additional treatment option for appropriately selected patients with uncontrolled or resistant hypertension. Patient selection should also consider difficult-to-treat patients with low adherence, medication-related side effects or polytherapy. Evaluation should confirm persistent uncontrolled BP, exclude white-coat and secondary hypertension, and assess cardiovascular risk, hypertension-mediated organ damage and medication adherence. Shared decision-making and multidisciplinary assessment in experienced centres remain essential.

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Renal denervation (RDN) was evaluated in high cardiovascular (CV) risk patients with uncontrolled hypertension. The presentation assessed patient characteristics, blood-pressure (BP) changes, hypertensive urgencies, and urinary albumin-to-creatinine ratio (uACR) following RDN. This session was presented by Markus Schlaich at the European Society of Cardiology (ESC) Congress 2026 in Munich.

The GSR DEFINE registry included 4,271 patients with uncontrolled hypertension undergoing RDN, including 798 with prior CV events. BP and CV outcomes were assessed through 36 months. Pooled SPYRAL ON- and OFF-MED trials included 388 RDN and 315 sham patients. Among 561 patients, uACR and estimated glomerular filtration rate were assessed through 24 months.

Among patients with prior MI, stroke or HF, office systolic BP decreased from 167 mmHg by 13.3, 13.9, 15.0 and 17.4 mmHg at 6 months, 1, 2 and 3 years, respectively; 24-hour systolic BP decreased by 7.4, 7.6, 7.6 and 9.9 mmHg (p<0.0001 at all time-points). At 3 years, office systolic BP reductions were observed across resistant hypertension (-23.5), diabetes (-16.4), atrial fibrillation (-17.6), chronic kidney disease (-11.6), isolated systolic hypertension (-15.9), age ≥65 years (-18.4), prior MI (-14.3), and stroke (-21.5 mmHg; p<0.001 for all). In severe hypertension, office systolic BP decreased by 40.0 mmHg and 24-hour systolic BP by 16.3 mmHg at 3 years (p<0.0001). A pooled SPYRAL ON- and OFF-MED analysis showed a 40% reduction in hypertensive urgencies with RDN versus sham (HR 0.60; 95% CI 0.40–0.90; p=0.014). Among patients with microalbuminuria, mean uACR decreased by 59% at 1 year and 50% at 2 years; in macroalbuminuria, reductions reached 59% and 66%, respectively.

## Conclusion

**RDN was associated with significant and sustained BP reductions across high CV risk subgroups, a 40% reduction in hypertensive urgencies, and marked reductions in uACR through 2 years, suggesting potential benefits in high-risk patients with uncontrolled hypertension.**

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### Long-term clinical benefit after radiofrequency renal denervation: pooled 36-month results from the SPYRAL Clinical Program

#### Clinical benefits: definition

1. Office systolic BP reduction  $\geq 10$  mmHg, or
2. 24-h ambulatory systolic BP reduction  $\geq 5$  mmHg, or
3. Reduction of  $\geq 1$  AH medication

#### Key results

- N = 2137 patients treated with Spyral pooled from 4 studies and followed for 3-years
- Clinically significant reduction in Office and 24-hour ABPM at 3-years
- 18.1 mmHg reduction in Office SBP
- 13.3 mmHg reduction in 24-hour ABPM
- Excellent safety with very low adverse event rate

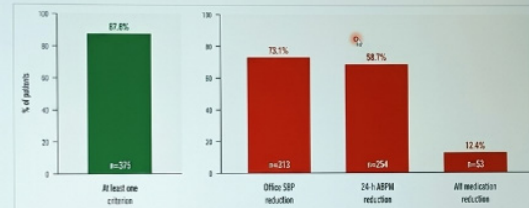


Figure 4. The proportion of patients experiencing a clinical benefit 36 months after RDN. The proportion of patients experiencing a clinical benefit (green) is broken down into its non-mutually exclusive components (red). AH: antihypertensive; RDN: renal denervation; SBP: systolic blood pressure

Nearly 9 out of 10 patients experienced a clinical benefit after RDN

Hypertension is heterogeneous, and complex resistant hypertension requires personalized diagnosis, multidisciplinary management, and consideration of patient preferences. It addressed practical management of complex hypertension through hypertension clinics, individualized work-up, optimized medical therapy, and renal denervation (RDN). This session was presented by Dr Valérie Duchatelle at the European Society of Cardiology (ESC) Congress 2026 in Munich, Germany.

The session highlighted three clinical cases illustrating resistant, labile, and chronic kidney disease (CKD)-associated hypertension, alongside pooled 36-month results from four SPYRAL Clinical Program studies. Hypertension-clinic pathways included medication and adherence review, lifestyle assessment, screening for secondary causes, confirmation with ambulatory BP monitoring (ABPM), multidisciplinary decision-making, and post-RDN follow-up.

In a 70-year-old man with resistant hypertension and HFpEF, RDN with the Symplicity system reduced office BP from 159/102 to 149/74 mmHg at 6 months and ABPM to 139/74 mmHg. In a 50-year-old woman with labile hypertension and intolerance to ACE inhibitors, amlodipine and diuretics, RDN produced controlled BP without medication, with global ABPM 121/79 mmHg. In a 65-year-old man with type 2 diabetes, LV remodeling and stage 3 CKD, uncontrolled BP despite multiple therapies led to RDN plus addition of an SGLT2 inhibitor. Pooled SPYRAL data included 2,137 patients followed for 3 years; 87.8% achieved clinical benefit, with office systolic BP reduced by 18.1 mmHg and 24-hour systolic BP by 13.3 mmHg, with excellent safety.

## Conclusion

RDN is an effective guideline-recommended option for BP reduction, alone or with optimal medical therapy. Hypertension clinics can simplify complex management, while individualized work-up, lifestyle measures, and patient preference remain central to care

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# Real-world barriers to long-term ARNI therapy in HFrEF: a one-year analysis of tolerability and dose achievement

C. Costa

Sacubitril-valsartan (ARNI) has demonstrated significant benefits in reducing heart failure (HF) hospitalizations and all-cause mortality in patients with heart failure with reduced ejection fraction (HFrEF). However, treatment intolerance and financial constraints may compromise long-term adherence. This study evaluated the causes of ARNI discontinuation and dose-titration outcomes after 1 year of follow-up in an outpatient HF management setting. This session was presented by C Costa at the European Society of Cardiology (ESC) Congress 2026, held from 28th to 31st August 2026 in Munich, Germany.

A total of 767 patients with HFrEF (LVEF <40%) were included between June 2021 and June 2024, of whom 698 (91%) completed the 1-year follow-up. Mean age was  $64 \pm 10.4$  years, 64% were male, and baseline NT-proBNP was  $2349 \pm 1522$  pg/mL. Ischaemic cardiomyopathy was the most common HF etiology (37%), followed by alcoholic cardiomyopathy (21%), tachycardia-induced cardiomyopathy (18%), familial or hereditary forms (13%), valvular disease (7%), and other causes (4%).

After 1 year, 76% of patients continued ARNI therapy. Hypotension was the leading cause of discontinuation (44%), followed by financial limitations (24%), renal dysfunction (12%), cough (11%), hyperkalemia (8%), and angioedema (1%). Among patients continuing ARNI, 25% remained on a low dose, 46% received an intermediate dose, and only 29% reached the recommended target dose.

## Conclusion

ARNI therapy was maintained in the majority of patients over 1 year, although fewer than one-third achieved the target dose. Hypotension and financial limitations were the leading barriers to treatment continuation, highlighting persistent real-world challenges in optimizing ARNI therapy in HFrEF.

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